RA Rodeo Owner’s Handbook

RA RODEO

Vehicle Identification Certificate

Owner's name

Owner's address

Town State Postcode

Vehicle Identification Number (17 character ISOVIN)

Model name

Registration number Engine number

Odometer reading

Date of purchase

Selling Retailer's Stamp and Signature

GM Holden Ltd, ABN 84 006 893 232 (hereinafter Holden)

Change of name, address or ownership
In the event of a Safety Recall, or for various reasons, Holden may need to contact you as the owner of this vehicle. Also, if less than three years old, this vehicle will qualify for Roadside Assistance, refer to Chapter 9.

If you have recently changed your address, or name, or purchased this vehicle second-hand, please help us to help you by taking a few minutes to fill in and mail the form on the third page of this handbook.

For information about GM Holden's privacy policy or to update owner details online, please visit Holden's website at www.holden.com.au

Printed in Australia
Part No. 92182090
November 2005 (RA Rodeo Print 1)

© 2005 GM Holden Ltd
Reproduction in whole or part is prohibited without written approval from GM Holden Ltd, ABN 84 006 893 232

CONTENTS

Dash layout, tilt steering and horn, gauges, warning / reminder lights, wipers and washers, exterior lights, radio, ventilation and heating, electronic climate control system, air conditioning, demisting, ashtray and lighter, information display, multi-information display, bonnet release, ignition switch, cruise control. *Dashboard* **1**

Immobiliser, keys and locks, door locks and deadlocking, electric door locks, remote control, tailgate glovebox. *Locks* **2**

Front seat adjustment, rear seat adjustment, seat belts, which type of child restraint for your child, child restraints, mirrors, windows, park brake interior lights, roof, convertible model. *Know your vehicle* **3**

Engine starting, safety, automatic transmission, manual transmission, driving precautions, anti-lock brake system, traction control. *Driving* **4**

Fuel, petrol filling, emission control, reducing fuel consumption. *Fuel* **5**

Accidents, being involved, being a witness, medical assistance, flat tyre, towing a disabled Astra, engine overheating, flat battery, airbags, bulb replacement, fuses. *Emergencies* **6**

Miscellaneous checks, engine oil level, engine coolant level, brake fluid level, transmission fluid level, steering fluid level, washer fluid level, battery, tyres, trolley jack, hoist locations. *Weekly checks* **7**

Engine specifications, transmission specifications, dimensions, battery, identification labels. *Specifications* **8**

New Vehicle Warranty certificate, Parts and Accessories Warranty, Warranty questions and answers, Roadside Assistance, Customer Assistance, for New Zealand Holden owners. *Customer Assistance* **9**

Loading the vehicle, towing. *Tow and Load* **10**

Interior cleaning, caring for paint, roof, paint polishing, wheels and tyres, exterior glass, cleaning products. *Cleaning* **11**

Service intervals, service light, additional service requirements, maintenance schedule, service times, service coupons. *Servicing* **12**

Index

We thank you for choosing Holden and want to assure you of our continuing interest in your motoring pleasure and satisfaction and compliment you on your choice.

This handbook applies to all Rodeo models. Due to different models and options, you may find reference in this handbook to some equipment not installed in your own vehicle.

Please note that all information, illustrations and specifications in this handbook are based on the latest production information available at the time of printing.

Holden reserves the right to make changes at any time without notice and without incurring any obligation.

CHANGE OF ADDRESS OR OWNERSHIP

Please fill in the form below if you have changed your name, address, bought the vehicle second-hand, or have become the new driver. Holden requires these details in order to contact the operator in the event of a safety recall and to keep the initial 3 year Roadside Assistance details up to date (refer to Chapter 9). For information about Holden's privacy policy, please visit Holden's website at *www.holden.com.au.*
Please mail to the address on the back of this page.

Please tick the appropriate box:

☐ Original Owner ☐ Subsequent Owner

Title: (Mr, Mrs, Miss, Ms.)

First name in full or initials

Surname or Name of Company/Institution/Government Department

Address

Street/box

City/Town

State Postcode

1st contact phone no

2nd contact phone no

Email address

Vehicle registration number

Holden number (if fitted – refer to Chapter 8)

ISOVIN Number (Refer to Chapter 8)

Place in an envelope and mail to:

The Manager - Warranty Administration
Service Department
GM Holden Limited
Box 548D, G.P.O.
Melbourne
Victoria, 3001

CHANGE OF ADDRESS OR OWNERSHIP

Please fill in the form below if you have changed your name, address, bought the vehicle second-hand, or have become the new driver. Holden requires these details in order to contact the operator in the event of a safety recall and to keep the initial 3 year Roadside Assistance details up to date (refer to Chapter 9). For information about Holden's privacy policy, please visit Holden's website at *www.holden.com.au.*
Please mail to the address on the back of this page.

Please tick the appropriate box:

☐ Original Owner ☐ Subsequent Owner

Title: (Mr, Mrs, Miss, Ms.)

First name in full or initials

Surname or Name of Company/Institution/Government Department

Address

Street/box

City/Town

State Postcode

1st contact phone no

2nd contact phone no

Email address

Vehicle registration number

Holden number (if fitted – refer to Chapter 8)

ISOVIN Number (Refer to Chapter 8)

Place in an envelope and mail to:

The Manager - Warranty Administration
Service Department
GM Holden Limited
Box 548D, G.P.O.
Melbourne
Victoria, 3001

CHANGE OF ADDRESS OR OWNERSHIP

Please fill in the form below if you have changed your name, address, bought the vehicle second-hand, or have become the new driver. Holden requires these details in order to contact the operator in the event of a safety recall and to keep the initial 3 year Roadside Assistance details up to date (refer to Chapter 9). For information about Holden's privacy policy, please visit Holden's website at *www.holden.com.au.*
Please mail to the address on the back of this page.

Please tick the appropriate box:

☐ Original Owner ☐ Subsequent Owner

Title: (Mr, Mrs, Miss, Ms.)

First name in full or initials

Surname or Name of Company/Institution/Government Department

Address

Street/box

City/Town

State Postcode

1st contact phone no

2nd contact phone no

Email address

Vehicle registration number

Holden number (if fitted – refer to Chapter 8)

ISOVIN Number (Refer to Chapter 8)

Place in an envelope and mail to:

The Manager - Warranty Administration
Service Department
GM Holden Limited
Box 548D, G.P.O.
Melbourne
Victoria, 3001

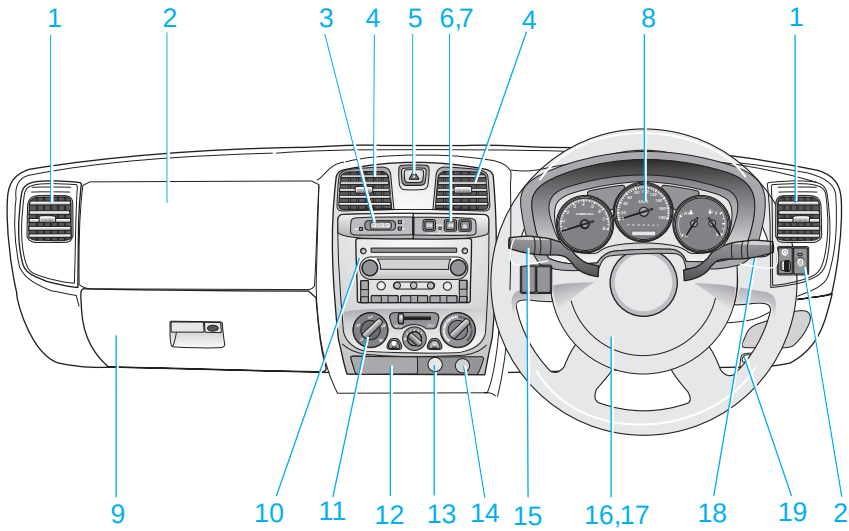
CHAPTER 1

Dashboard

The following page illustrates the dashboard, identifying and locating each function; page numbers refer you to each item.

Page	
1-2	Layout
1-3	Gauges
1-4	Gauges and dimmer
1-5	Clock and warning lights
1-10	Wipers and washers
1-11	Demister, horn and radio
1-12	Headlights
1-13	Turn signals, fog lights and ignition switch
1-14	Immobiliser, hazard warning and park brake
1-15	Ventilation and heating
1-16	Heater controls
1-19	Accessory power outlet, lighter and ashtray
1-20	Glovebox, small pocket and bonnet release
1-21	Cruise control (Petrol)
1-24	Cruise control (Diesel)

LAYOUT

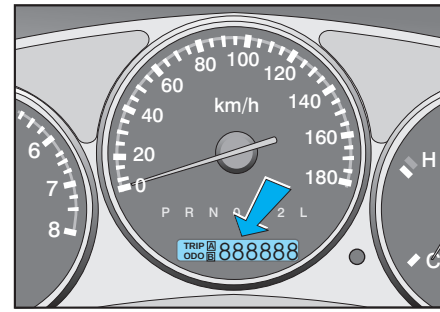


		Page
1	Air outlets (side)	1-15
2	Passenger's air bag (if fitted)	6-13
3	Clock (if fitted)	1-5
4	Air outlets (Centre)	1-15
5	Hazard warning switch	1-14
6	Storage box (2WD model / if fitted)	3-16
7	Transfer shift switch (4WD model)	4-18
8	Instrument gauges	1-3
9	Glove box	1-20
10	Audio head unit (if fitted)	1-11
11	Heater controls	1-16
12	Ashtray	1-19
13	Cigarette lighter	1-19
14	Accessory power outlet	1-19
15	Wiper and washer switches	1-10
16	Horn	1-11
17	Driver's air bag (if fitted)	6-13
18	Light switches	1-12
19	Bonnet release lever	1-20
20	Cruise control main switch (if fitted)	1-21

GAUGES

Speedometer

The Speedometer gauge indicates the vehicle speed in kilometres per hour (km/h).



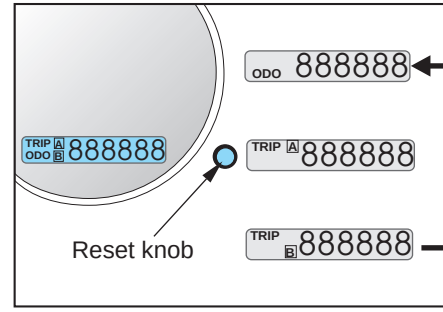
Odometer and tripmeter

A small window under the speedometer is used for the tripmeter and odometer.

The odometer records the distance travelled since the vehicle was built, and the tripmeter records the distance travelled on a particular journey. The tripmeter can keep a record of two different journeys at the same time.

The tripmeter reset knob is located at the lower right-hand side of the speedometer dial.

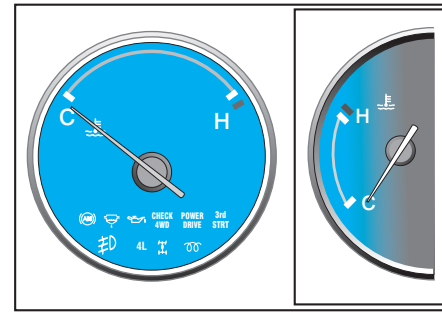
With the ignition switched on, push the reset knob to change the display between ODOMETER, TRIP A and TRIP B. If the reset knob is pressed for more than one second, the tripmeter resets to zero.



Temperature gauge

The temperature gauge indicates the temperature of the engine coolant when the ignition switch is turned on.

Stop-start driving in heavy traffic, driving at high speed in warm weather, hill climbing or towing may cause the needle to move toward the extreme top of the gauge. This is normal, and is no cause for concern. However, if the needle moves all the way to the H mark on the gauge and remains there for more than 30 seconds, you should stop the vehicle as soon as it is safe to do so. Refer to Chapter 6 for overheating instructions.

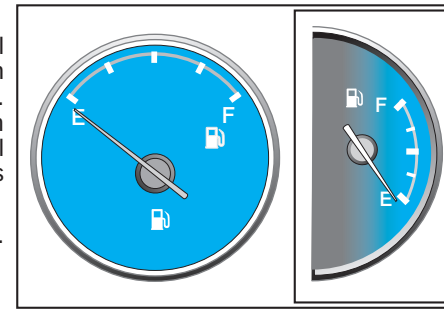


GAUGES AND DIMMER

Fuel gauge

The fuel gauge indicates the level of fuel within the fuel tank when the ignition switch is on. F represents full, E represents empty. The needle in the fuel gauge falls to E when the ignition switch is turned off. The fuel tank contents displays when the ignition is turned to on.

Refer to Chapter 5 for refuelling instructions.

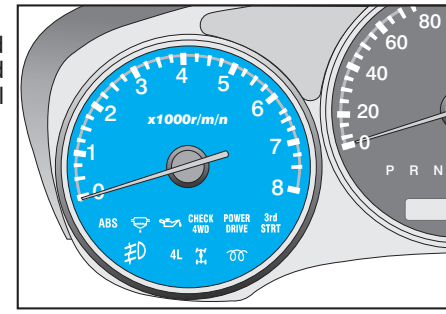


Tachometer (if fitted)

The tachometer indicates the engine speed in revolutions per minute (r.p.m.). The red zone of the tachometer indicates critical engine speed.

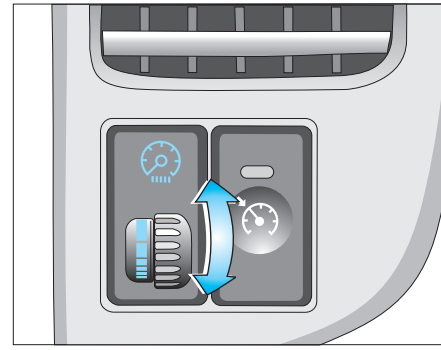
WARNING:

Never operate the vehicle with the tachometer needle in the red zone. Continued operation with the tachometer needle in the red zone will lead to serious engine damage.



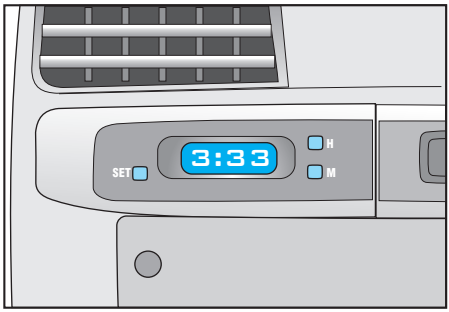
Dimmer – instrument lighting

To adjust the instrument lighting brightness, ensure the headlights or park lights are switched on. Turn the dimmer thumb wheel, located to the right-hand side of the steering column, to adjust the instrument lighting to the desired brightness.



CLOCK AND WARNING LIGHTS

Clock (if fitted)



The time on the clock displays constantly regardless of the ignition switch position. The clock display is adjusted as follows:

H Hour display advances rapidly while this button is pressed.

M Minute display advances rapidly while this button is pressed.

SET When the set button is pressed, the time is rounded off to the closest hour.

The clock does not display seconds, but starts from zero second when the set button is pressed.

Power drive (auto transmission)

The POWER DRIVE light illuminates when the ignition switch is on and power drive is selected, refer to Chapter 4.

POWER DRIVE

Check trans (auto transmission)

To check that the CHECK TRANS warning light is working, it lights up for a short time after the ignition switch is turned on.

If the CHECK TRANS light illuminates, the computer controlling the automatic transmission has found a problem. The vehicle can still be driven when the CHECK TRANS light is illuminated, however the computer will put the automatic transmission into 'safety mode' (refer to Chapter 4). Ensure that the automatic transmission is checked by your Holden Dealer as soon as possible.

CHECK TRANS

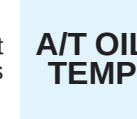
3rd start (auto transmission)

The 3rd STRT light will illuminate when the engine is running with the automatic transmission lever in D range, and the 3rd start button is selected. The 3rd start indicator light will not illuminate unless the vehicle has stopped or is travelling at a speed below 11 km/h. For HFV6, the light operates continuously regardless of vehicle speed. Refer to page 4-14 for further information.

3rd STRT

WARNING LIGHTS cont.

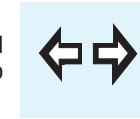
Automatic transmission oil temperature



To check that the automatic transmission oil temperature warning light is working, it will light up for three seconds after the ignition switch is turned to the on position.

If the light comes on while driving, this indicates that the automatic transmission oil temperature is too high. You should stop the vehicle as soon as it is safe to do so, leave the engine idling and place the automatic transmission in 'P' (park). If the light goes out, you may resume driving. If the light does not go out, have your automatic transmission checked by a Holden Dealer as soon as possible.

Turn signals



When the turn signal switch or hazard warning light switch is switched on, the turn signal indicator light (within the instrument panel) flashes to indicate operation of the turn signal lights or hazard warning lights.

High beam

This indicator light is displayed when the headlight's high beams are in use.

Oil pressure

To check that the oil pressure warning light is working, it displays when the ignition switch is turned to on and the remains on until the engine is started.

If the oil pressure light is illuminated while driving, this indicates that the oil pressure is dangerously low. Stop immediately and check the engine oil level (refer to Chapter 7). Do not drive the vehicle with the symbol showing. If the oil level is normal, have the system checked at your nearest Holden Dealer as soon as possible.

Low fuel

The low fuel indicator light displays when the petrol tank is approaching empty. Never let the tank become empty.

Fog light

This symbol displays when the fog lights are in use. Refer to FOG LIGHTS, later in this Chapter.

WARNING LIGHTS cont.

Brake

If the brake warning light displays when you are driving and the park brake is fully released, there maybe a fault with the braking system. You should immediately stop the vehicle (as carefully as possible) and check the fluid level in the brake master cylinder, as shown in Chapter 6. Do not proceed until the reason for the warning has been located and rectified.

In addition, diesel equipped vehicles are fitted with a low vacuum warning which may illuminate when the brake pedal is pumped while the engine is running at low speed. This is due to insufficient vacuum being generated and does not indicate a problem. However, if the light illuminates after two or three seconds at idle, the vacuum line may be defective and you should see your Holden Dealer.

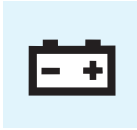
Anti-lock brake system (ABS)

To check that (ABS) warning light is working, the warning light will come on when the ignition switch is turned to the on position, and will go out after a few seconds.

If the light comes on while driving, carefully stop the vehicle and turn off the engine. If the light stays on or illuminates again while driving, you should have the system checked by a Holden Dealer.

Note: This light indicates that the anti-lock braking system is not operating. Your vehicle's brake system will still operate conventionally (Refer Chapter 4).

Battery



To check that the warning light is working, the light is displayed when the ignition switch is turned to the on position, and will remain on until the engine is started.

If the symbol illuminates when driving, this may indicate that the generator is not charging the battery. If the generator drive belt is intact, there is a problem in the charging system and you should see your Holden Dealer.

Glow plug indicator (diesel only)

Your diesel engine has a special starting system. Turning the ignition key to ON, starts this system and also turns on the light for two to seven seconds, when the engine is cold.

When the glow plugs have heated the engine enough for a preset time, the indicator light will go out. This indicates that the engine is ready to be started.

Door open indicator

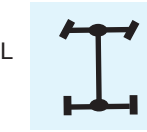
The indicator light comes on if any door is not fully closed, when the ignition switch is turned to the ON or START position.

WARNING LIGHTS cont.

Fuel filter indicator (diesel only)

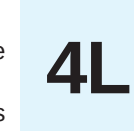
Under certain circumstances water may be trapped in the fuel tank. To prevent this water from reaching the vital parts of the engine or fuel system, a water separator is installed. When the level of the water within the water separator reaches a specified level, the indicator symbol illuminates. If the symbol comes on and remains on while the engine is running, the water needs to be drained from the water separator, refer to Chapter 6.

Four wheel drive indicator (4WD only)



The ⌑ light displays when the transfer control switch is in the 4H or 4L position. Refer to Chapter 4 for driving instructions.

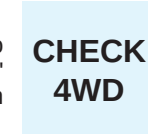
4L (4WD only)



To check that the **4L** light is working, it displays for two seconds when the ignition is switched to the on position.

This indicator light operates in combination with two other indicator lights (4WD and Neutral) and indicates the state of the 4WD system. The **4L** light will illuminate when the transfer control switch is pressed.

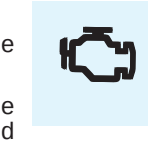
Check 4WD (4WD only)



This indicator light is located on the instrument panel and is designed to indicate the need for a system service. It is provided with a 'bulb check' function which will operate the light for two seconds when the ignition switch is turned to the on position.

Have the system repaired if the CHECK 4WD light does not come on for two seconds after the ignition switch is turned to the ON position. Also, repair of the system is required when the CHECK 4WD lights up after the two second bulb check. Have your Holden Dealer inspect the system and correct the problem.

Check engine lamp (C24SE and 4JH1-TC)



This vehicle is fitted with a Electronic Engine Management System. The 🔧 light indicates when a system service is required.

To check that the warning light is working in petrol engine vehicles the 🔧 displays when the ignition switch is turned to the on position and remains on until the engine is started. In diesel engine vehicles the 🔧 displays when the ignition switch is turned to the on position and remains on for 2.6 seconds then goes off.

If the symbol illuminates while driving, this indicates a fault in the Engine Management System or the engine immobiliser system. Although the vehicle may still be driveable, it is recommended that you have a Holden Dealer correct the problem as soon as possible, as continued driving could affect fuel consumption and engine performance.

WARNING LIGHTS cont.

MIL - Malfunction indicator light (HFV6)

This vehicle is fitted with an emission monitoring system. The light illuminates when the ignition is switched on and extinguishes shortly after the engine starts to run.

If the light illuminates when driving, the emission system may require servicing. Although the vehicle may still be drivable and not require towing, consult the nearest Holden dealer as soon as possible. However, if the light flashes while driving, reduce speed until the light stops flashing and take the vehicle to a Holden dealer as soon as possible.

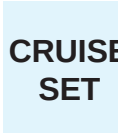
SVS indicator light (HFV6)

The 'SVS' light is designed to indicate the need for system service. It will come on when the ignition switch is in the 'ON' position, but before the engine is started, to let you know the bulb is working. Have the system repaired if the 'SVS' light does not come on when the ignition switch is in the 'ON' position, but before the engine is started.

If the light flashes and the engine will not start, switch off the ignition for at least 5 seconds before attempting to start the engine again. Refer to the immobiliser section on Page 1-14 for futher information.

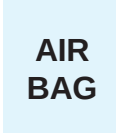
Note: If the light comes on either intermittently or continuously while driving, service is required. Even if the vehilce is drivable, and does not require towing, see your Holden dealer as soon as possible for service of the system. Continued driving could cause damage to the emission control system. It could also affect fuel economy and drivability.

Cruise set (if fitted)



The factory fitted Cruise control has a CRUISE SET light which will come on when the cruise control is maintaining vehicle speed, refer to Cruise Control, later on in this Chapter.

Air bag (if fitted)



To check that the Air bag system is working, the AIR BAG light will flash seven times when the ignition switch is turned to on.

If the symbol displays while driving, it indicates that the air bag system may not inflate in an accident and you should see your Holden Dealer.

Seat belt reminder (if fitted)

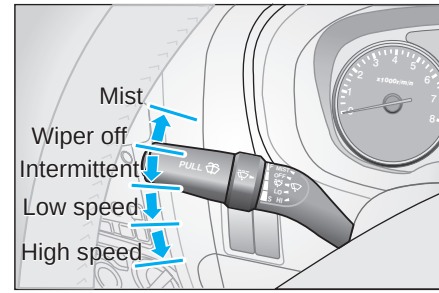
On some models, when the ignition switch is turned on, the light comes on to remind occupants to fasten their seat belts.

WIPERS AND WASHERS

Wipers and washers

The windshield wiper lever is located on the left-hand side of the steering wheel column. When the windshield wiper lever is shifted down to the LO position, the wiper operates slowly. When shifted down to the HI position, the wipers operate faster. To stop the wipers, shift the windshield wiper lever up to the OFF position.

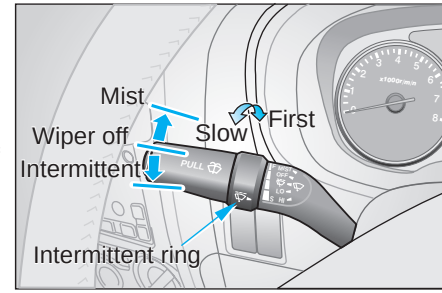
When the windshield wiper lever is shifted up and held in the MIST position, the wipers will operate. When the windshield wiper lever is released the wipers will then stop operating.



Variable intermittent windshield wiper (if fitted)

The wipers will operate intermittently when the intermittent ring is rotated to the INT position. The interval between wiper sweeps can be adjusted within a range of approximately 1.5 to 15 seconds by turning the intermittent ring.

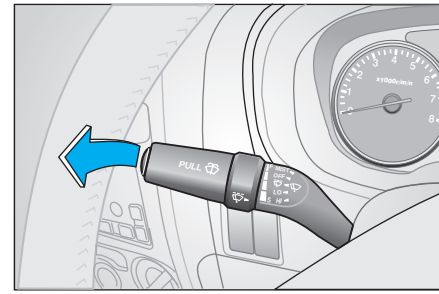
Never operate the wipers on dry glass, as this will damage the rubber and scratch the windshield. Ensure the wipers are clear of any snow or ice before switching them on.



Windshield washer switch

To spray washer fluid onto the windshield, pull the windshield wiper lever towards you. Even if the wiper setting is not selected, the wiper will move at this time and operate as long as the windshield wiper lever is held in this position.

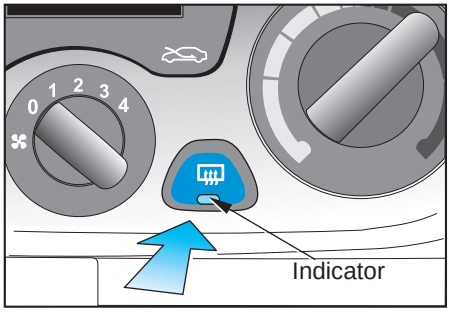
On models with intermittent wipers, the wipers will continue to operate for a short time after the windshield wiper lever is released.



DEMISTER, HORN AND RADIO

Rear window demister (if fitted)

The ignition must be on to operate the demister. The demister switch is located on the heater control panel.



To operate the rear demister press the switch. The light in the demister switch illuminates.

The rear window demister is fitted with an auto cancel timer, which will turn off the demister automatically after 10 minutes.

Turn the demister off manually by turning the ignition switch to accessories (ACC) or by pushing the demister switch again.

WARNING:

- Do not use any abrasive cleaner to clean the inside of the rear window. Normal window cleaning can be done by using a commercial liquid ammoniated cleaner.
- Be careful not to scratch or damage the demister wires when cleaning the rear window.
- The rear window demister draws a high battery current. Unnecessary use of the rear window demister will drain your vehicle's battery.

Horn

The horn is activated when the pad, located on the centre of the steering wheel is pressed.

Radio

Refer to the operating instruction supplement in your glovebox for all information relating to the operation of the radio / CD player in your vehicle.

HEADLIGHTS

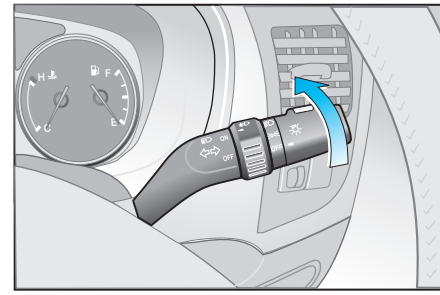
Light switch

The light switch has three positions:

OFF All lights off.

Park lights and instrument lights on.

Headlights, park lights and instrument lights on.

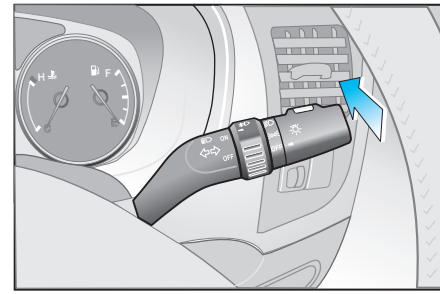


A constant tone chime reminds you to switch your headlights off before leaving your vehicle. It will sound when the headlights are switched on and the driver's door is opened.

High / low beam

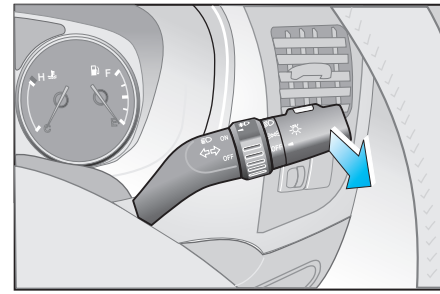
Switching between high and low beam is controlled by the lever on the right-hand side of the steering wheel column. Push the lever to switch from low beam to high beam and return the lever to the original position for low beam.

The headlight high beam indicator (≡D) on the instrument panel lights up when the headlights are in high beam.



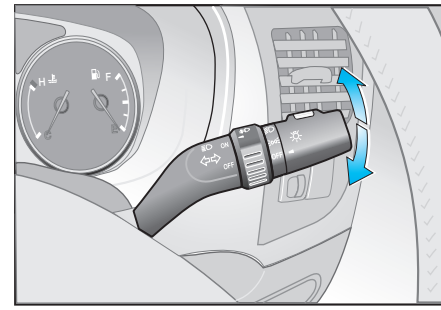
Flashing high beam

It is also possible to flash the high beams for signalling purposes by pulling the lever towards you (even with the headlights turned off). The lights remain in high beam as long as the lever is held in this position.



TURN SIGNALS, FOG LIGHTS AND IGNITION SWITCH

Turn signals

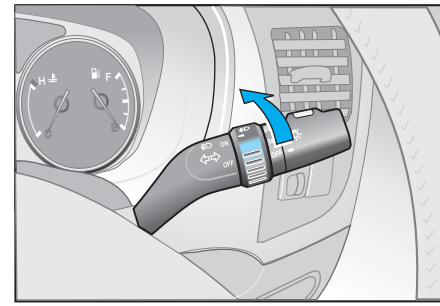


The turn signal lever is on the right-hand side of the steering column. Push the lever up to signal a left turn and down to signal a right turn.

In some turns (such as changing lanes), the steering wheel is not turned far enough to cancel the turn signal. So, to indicate a lane change, move the lever part way and hold it. The lever will return to the neutral position when you release it.

An arrow on the instrument panel flashes when the turn signals are in operation.

Fog lights (if fitted)

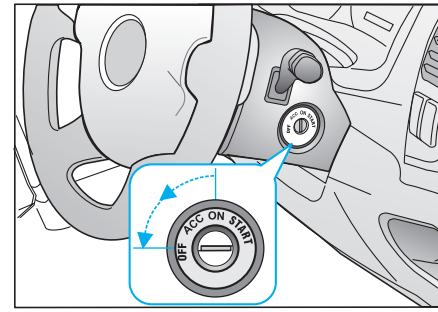


The fog light switch is located on the turn signal lever.

To operate the fog lights, rotate the fog light switch upwards.

The fog lights are operational when the park or head lights are switched on (with the ignition switched on or off). The ≢D indicator in the instrument panel illuminates when the fog lights are switched on.

Ignition switch



LOCK: This is the normal parking position for the ignition switch; the accessories and engine are off. The ignition key can only be removed from the ignition switch when it is in this position. When the key is removed the ignition and steering are locked. To release the steering lock, insert the key into the switch and turn the key to any other position. If you have trouble turning the ignition key to unlock the steering, turn the steering wheel slightly to the right or left while turning the key.

ACC: When the ignition key is in this position, the engine is off, but accessories such as the radio will still operate. To avoid flattening the battery, avoid excessive use of accessories when the engine is not running.

ON: In this position, the engine is ready to start and all electrical systems are active. Do not leave the ignition switch in this position for a prolonged period unless the engine is running, otherwise the battery will discharge.

START: This is the position for starting the engine. The ignition key should be released from this position as soon as the engine starts.

IMMOBILISER, HAZARD WARNING AND PARK BRAKE

WARNING:

Do not turn the engine off while the vehicle is moving. Power assisted equipment (such as brakes or steering) which are operated by the engine will be ineffective. Never remove the key while the vehicle is moving, as this will lock the steering.

Immobiliser

To provide additional security, your Rodeo is fitted with a vehicle immobiliser. The engine will not crank unless the correct key (correctly programmed) is used.

Note: Any additional or replacement keys must be purchased from and programmed by a Holden Dealer.

If the immobiliser system has developed a fault or an incorrectly programmed key is used to attempt to start the vehicle, the CHECK ENGINE light will begin to flash.

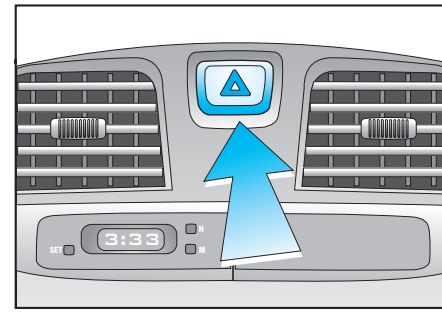
Hazard warning

Press the switch located between the two centre air vents to turn the hazard warning flasher on and off. The hazard warning flasher works regardless of the ignition position.

When turned on, all turn signals will continuously flash.

Use the hazard warning flasher to warn other drivers any time your vehicle becomes a traffic hazard.

Use of the hazard warning flashers while the vehicle is moving is illegal in some States.

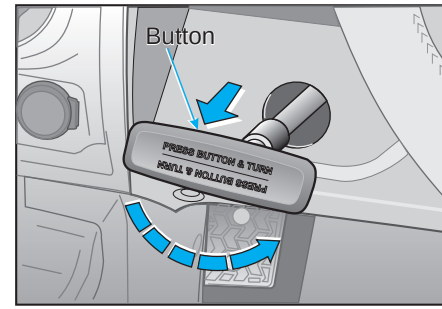


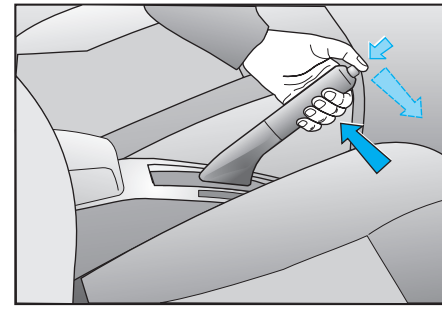
Park brake lever

Never drive with the park brake applied, as this will overheat and damage the park brake.

DASH MOUNTED TYPE: A ratchet type park brake lever is mounted to the left of the steering column. To apply the park brake, pull the lever out. To release the park brake, push the button in, turn the lever anticlockwise and then push it back into its home position.

CONSOLE MOUNTED TYPE: The park brake lever is located between the front seats. To apply the park brake lever pull upwards . To release the park brake, pull the park brake lever slightly upwards, squeeze the release button and lower the park brake lever all the way down.





VENTILATION AND HEATING

Operation

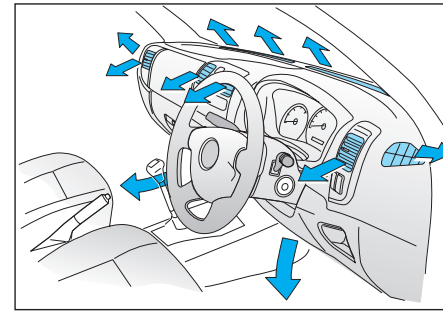
The vehicle features a flow-through ventilation system for your comfort. Under reasonable conditions, it should not be necessary to open the windows at any time. Fresh air (when selected by the air source lever) is drawn into the vehicle through the grilles in front of the windscreen. Do not allow them to become clogged with debris, such as leaves or snow.

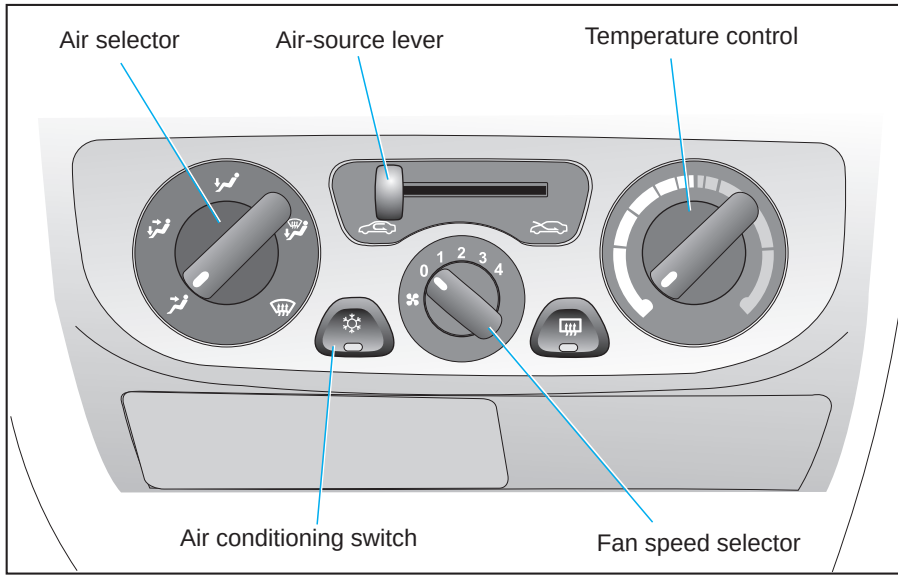
Outlets

The air can be directed by the air selector to five different outlets: window, demister, windscreen demister, floor and face level.

The four face level outlets on the instrument panel have adjustable vanes which may be swivelled up or down and left or right to allow directional control of the air flow.

The floor, window demister and windscreen demister outlets are fixed, as these direct air to the windows, windscreen or feet in the best possible way.





Ventilating and heating controls

HEATER CONTROLS

Air selector

Different vents are selected when the air selector is set in the following positions:

Air flows from the four face level outlets.

Cooler air flows from the face outlets and warmer air from the feet outlets, except when the temperature control is moved to its extreme right or left positions. In this case the air from the upper and lower vents is at the same temperature.

Air flows from the foot vents with a small amount from the window and windscreen demist outlets.

Air flows from the foot vents, window demist and windscreen demist outlets.

Air flows from the window demist and windscreen demist outlets with a small amount from the floor outlets.

Air source lever

Air intake source is selected when sliding the air source lever to the following positions:

Outside air is drawn into the vehicle.

Air within the vehicle is recirculated with the aid of the fan.

Note: Recirculating the inside air for an extended time is not recommended; switch to outside air as soon as possible to renew the air.

Temperature control

The temperature control regulates the temperature of the air entering the passenger compartment. Turn the control clockwise for warmer air and anticlockwise for cooler air.

Fan speed selector

The fan selector provides speed control of the blower fan: 0 (off), 1, 2, 3 and 4.

HEATER CONTROLS cont.

Air conditioning (if fitted)

The air conditioning is operational when the engine is running and the fan is on.

Press the ❄ button, located on the ventilating and heating control panel to activate the air conditioning. Set the fan position to 1, 2, 3, or 4 to begin air circulation. An indication light will illuminate on the button when the air conditioning is in use. Turn the temperature control to the desired temperature.

To conserve fuel, turn off the air conditioner when it is not required.

Once every two weeks, with the engine running, switch the air conditioner on for 5 to 10 minutes even in winter to lubricate seals.

Windscreen demisting

To demist the windscreen, air conditioned air flows from the front demister outlets, with a small amount flowing from the side window demister outlets. To achieve this, move the air selector to , then select the air flow and air source required. If you require limited demisting, set the air selector to . Air flows from the foot vents simultaneously, with limited demisting.

Demisting can be accelerated in three ways: by the use of a higher air temperature, increased airflow or by activating the air conditioner.

In high humidity conditions, operate the system for approximately 30 seconds before selecting to purge the air from the system.

Hot weather

For a quick cool down when first entering the vehicle on a hot day, switch on the air conditioner, select , move the temperature lever to full cold and turn the fan to a high speed. Also, open the windows to allow the hot air to escape. After a minute or two, close the windows.

It is recommended that you select 'outside air' () after the interior cools down (10 to 20 minutes) to achieve and maintain best comfort conditions during extended driving.

The coolest temperature is achieved when recirculate is selected. This can be used in slow city traffic or when the vehicle is stationary in very hot weather. Occasionally select or to allow outside air to enter the vehicle.

Performance / fuel economy

The air conditioner uses power from the vehicle's engine. Therefore, you will notice a small decrease in engine power, and a slight increase in fuel consumption, when the air conditioner is in use.

Cold weather

If the side windows or windscreen fog up on a cold day, switch on the air conditioner, turn the fan switch to a high speed, select and select a warm setting with the temperature control. This will circulate warm, dehumidified air throughout the vehicle, demisting the windows.

Note: The air conditioner not only reduces temperature but also reduces humidity and dust.

HEATER CONTROLS cont.

Automatic transmission

If your vehicle is stopped for long periods in hot weather with the engine running and the air conditioner operating, place the automatic transmission into N or P.

Cigarette smoke

If occupants are smoking, it is recommended that is not used.

Important

Once every two weeks, with the engine running, switch the air conditioner on for 5 to 10 minutes even in winter to lubricate the air conditioner seals.

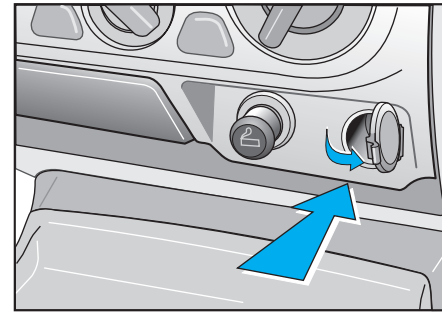
Dust

When following another vehicle on dusty roads, or to prevent exhaust fumes or odours entering your vehicle, select and close the windows.

When driving on unsealed roads but where the dust is not airborne, select (with the windows closed) and set the fan preferably on a high speed so that positive air pressure in the vehicle will prevent any dust entry.

ACCESSORY POWER OUTLET, LIGHTER AND ASHTRAY

Accessory power outlet

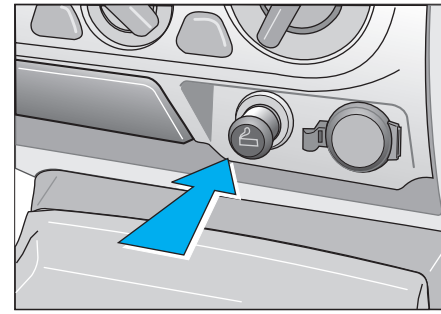


The accessory power outlet is located beside the cigarette lighter in the instrument panel. To plug in auxiliary electrical equipment, flip the outlet cover open as illustrated and follow the installation instructions that are included with any electrical equipment you install. These circuits are protected by a fuse and have maximum current loads.

WARNING:

When using all accessory power outlets, the total maximum electrical load must not exceed 120 watts. Always turn off any electrical equipment when not in use. Leaving electrical equipment on for extended periods with the engine stopped will drain the battery.

Lighter

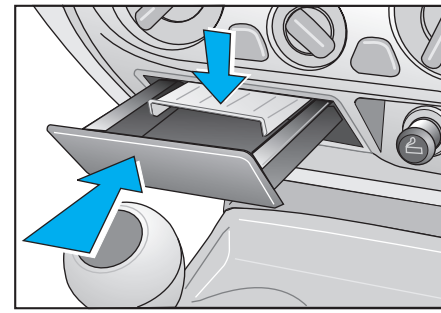


The cigarette lighter is operational when the ignition switch is turned to ON or ACC.

To operate the cigarette, press the lighter knob in. When the element is hot the lighter automatically pops out, ready for use.

Note: If the lighter does not pop out after 18 seconds, it is not operating and must be pulled out to the normal position manually. Do not attempt to use the cigarette lighter socket as a power supply.

Front ashtray



Ashtrays should only be used for ash, not for combustible rubbish.

To empty the ashtray, pull open the ashtray, press the top plate down, and pull it out.

To install, insert the ashtray and push it fully in.

GLOVEBOX, SMALL POCKET AND BONNET RELEASE

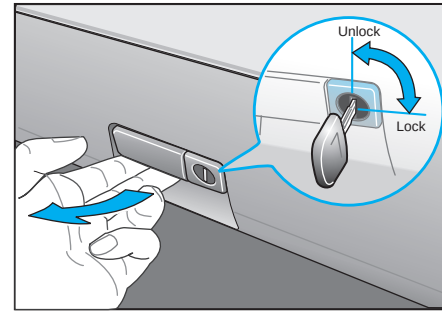
Glovebox

The glovebox is located on the passenger side of the instrument panel.

The glovebox can be opened by pulling the handle. Push the lid shut to close the glovebox.

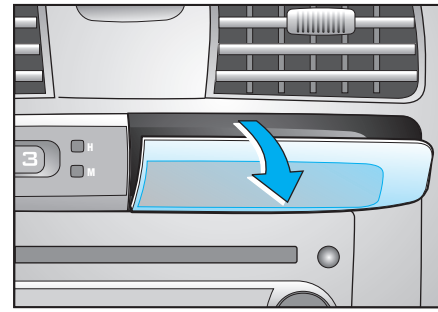
You can use the ignition key to lock the glovebox: turn the ignition key clockwise to lock, and anticlockwise to unlock.

The key must be vertical in the lock in order to withdraw the key and leave the glovebox unlocked.



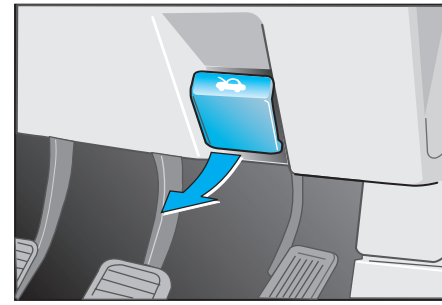
Small pocket (if fitted)

Pull the cover downward to open the small pocket, located below the centre vent.



Bonnet

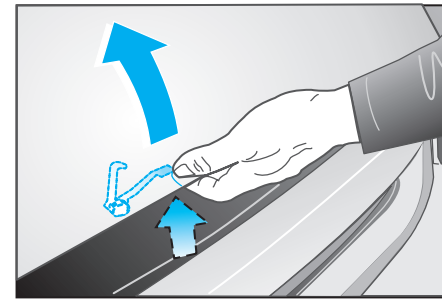
The bonnet lever is located inside the vehicle, under the driver's side of the dash board. To release the bonnet pull the lever towards you. The bonnet releases but is prevented from opening fully by a safety catch.



To open the bonnet completely, reach in under the centre of the bonnet and move safety catch upwards, then raise the bonnet.

To hold the bonnet in the open position, insert the support rod into the slot provided.

Before closing the bonnet, return the support rod to its clip in the radiator grille and lower the bonnet down. Push it firmly back into place. After closing it check that the bonnet has securely locked down.



CRUISE CONTROL (Petrol) (if fitted)

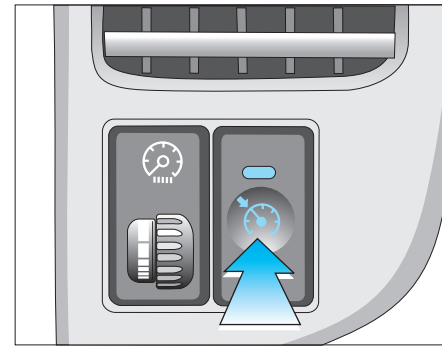
WARNING:

- The cruise control can keep the vehicle at a preset speed without having to use the accelerator pedal. This is useful when driving on open roads where frequent deceleration and acceleration are not required. Cruise control does not operate at speeds below 40 km/h.
- Do not use cruise control when the road or driving conditions could require varying speeds. A constant speed is not practical in heavy or varying traffic or on winding, slippery or rough roads.
- With manual transmission, never attempt to move the gear lever without using the clutch pedal while the cruise control is maintaining vehicle speed. The resultant increase in engine speed may cause damage.
- Remember that when both the cruise control main switch lamp and CRUISE SET lamp are illuminated the cruise control is maintaining the vehicle speed. Releasing the accelerator pedal will not reduce vehicle speed.
- When driving up and down hills (particularly when towing) it is possible for the vehicle to gain or lose speed even though the cruise control is active. If this happens while going up a hill, apply the accelerator pedal to maintain the desired speed. If going down a hill, apply the brake pedal, which will both disengage the cruise control and reduce the vehicle speed within safe limits.
- If a malfunction has developed in the cruise control system, have the system checked and corrected by a Holden Dealer as soon as possible.

Switch cruise control on

Switch the cruise control main switch on.

The cruise control must be switched on before a speed can be set, however, it remains inactive until a speed is set.



Cruise Control Lamp

The indicator lamp illuminates to indicate that cruise control is ready for the desired speed to be set.

Set desired speed

1. With the cruise control main switch in the on position, apply the accelerator pedal until the required speed is attained.
2. Press the SET / COAST button, located on the end of the cruise control lever, towards the direction of the steering column.
3. You can now remove your foot from the accelerator pedal.

   The vehicle speed will be maintained by the cruise control.

CRUISE CONTROL (Petrol) cont.

Indicator lamp: System active

The CRUISE SET lamp on the instrument panel illuminates when cruise control is maintaining your vehicle speed.

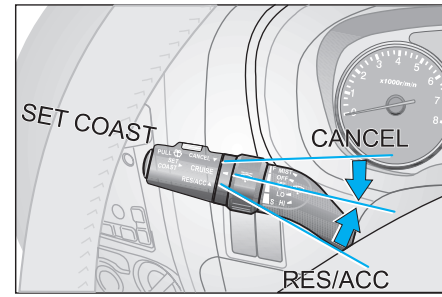
Accelerate

If you require a short burst of speed, to overtake another vehicle for example, apply the accelerator pedal. After passing the vehicle, release the accelerator pedal, the cruise control will then reduce vehicle speed to the previously set speed.

Increase the speed setting

There are three ways to increase the speed setting:

- Rotate the end of the lever to RES / ACC for less than 0.6 second. Each time you rotate the switch to this position, the speed setting increases by 1.6 km/h.
- Rotate the end of the lever to RES / ACC and hold. The speed setting increases in steps until you release the lever.
- Use the accelerator pedal to attain the required speed, then briefly press the SET / COAST button on the very end of the lever.



Decrease the speed setting

Decrease the speed setting using either of the following methods:

- Press the SET / COAST button for less than 0.6 second. Each time you press this button, the speed setting decreases by 1.6 km/h.
- Press and hold the SET / COAST button. Release the button when the vehicle slows to the desired speed.

Note: Cruise control deactivates if the speed decreases below 40 km/h or the SET / COAST button is used to reduce the cruise speed by more than 20 km/h.

Restore the previous speed setting

When the SET/ COAST button has been used to reduce cruise speed, the last preset speed will be stored on the memory of the cruise control. To restore the last preset speed, use the accelerator pedal to increase vehicle speed to within 20 km/h of the previous setting, then rotate the end of the lever to RES / ACC for less than 0.6 second.

Note: If you hold the end of the lever in the RES / ACC position for more than one second, the previous speed memory is erased and the speed increases until you release the switch.

CRUISE CONTROL (Petrol) cont.

Deactivate cruise control

There are several ways to deactivate cruise control:

- Apply the brake pedal.
- Apply the clutch pedal (manual transmission).
- Shift the transmission lever to N (automatic transmission) after the vehicle has stopped.
- Select CANCEL on the cruise control lever.

Switch cruise control off

- Press the cruise control main switch, on the dash, to the off position (lamp off).
- Press the SET / COAST button and turn the end of the lever to RES / ACC.
- Stop the vehicle and switch off the ignition.

Note: If cruise control senses a system fault, it will switch off. For example, if climbing a steep hill when a constant speed cannot be maintained.

CRUISE CONTROL (Diesel) (if fitted)

- If your vehicle is fitted with Holden accessory cruise control please refer to the operational instructions provided with the kit.

CHAPTER 2

Locks

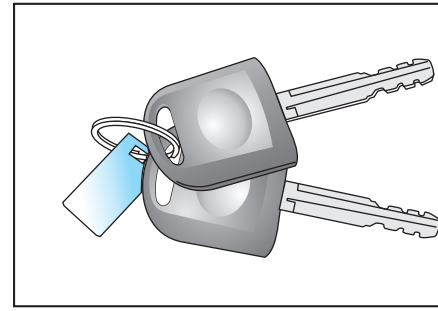
Page

2-2 Keys and keyless entry

2-4 Keys and locks

KEYS AND KEYLESS ENTRY

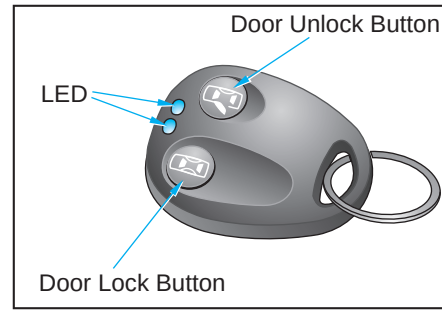
Keys



The code number for your keys is stamped on the key plate, which is attached to the key ring. Record the key number, remove the key plate and keep the number and the key plate in a safe place – not in the vehicle.

In the event of the original keys being lost, any additional or replacement keys must be purchased from and programmed by a Holden Dealer, using your key code number.

Remote control entry



The range of the remote control unit may be reduced due to shadowing and reflection of the radio waves. To operate the remote control unit, direct it at the vehicle and press the required button.

For your convenience, we recommend that the central locking system always be operated using the remote control unit.

Treat the remote control unit with care; it should be protected against moisture and should not be operated unnecessarily.

The light in the remote control unit illuminates and the hazard warning lights flash briefly to show that the remote control is operational.

To unlock the vehicle: Press the button on the remote control unit. The green light illuminates briefly and the doors unlock.

WARNING:

If a door is unlocked using its snib button after the vehicle has been locked using the remote control, the remote control will not lock the vehicle unless it is first used to unlock the doors.

To lock the vehicle: Press the button on the remote control unit. The red light illuminates briefly and the doors lock.

Note: If the remote control unit cannot unlock the central locking system, this maybe due to the following reasons:

- The voltage of the remote control battery is too low. Change the battery in the remote control unit.
- The remote control unit may have been operated too many times in succession outside the vehicle's reception range (e.g. too far from the vehicle). Resynchronise the remote control.
- Interference from high-power radio waves from other sources.

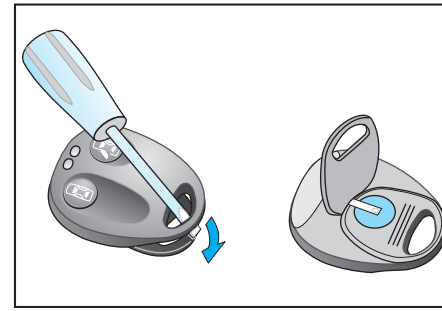
KEYS AND KEYLESS ENTRY cont.

Replacing the battery in the remote control unit

Replace the battery as soon as the range of the remote control consistently starts to reduce, as follows:

Note: The battery change must be performed within 3 minutes, otherwise the remote control will have to be resynchronised.

1. Use a screwdriver to remove the battery cover, as illustrated.
2. Remove and dispose of the spent battery in accordance with environmental protection regulations.
3. Install the new battery ensuring that it is inserted correctly.
4. Install the new battery cover; it should engage audibly.



Resynchronising the remote control

If the event of a malfunction, resynchronise the remote control as follows:

1. Switch the ignition on. The system will remain in resynchronising mode for 30 seconds.
2. While inside the vehicle, press either the button or the button on the remote control unit.
3. The central locking system locks and unlocks to show that remote control has been resynchronised.

Note: Resynchronising the remote control may be required if the battery is removed from the key for more than 3 minutes.

WARNING:

The remote control unit is built up of precision electronic parts. To help avoid transmitter trouble:

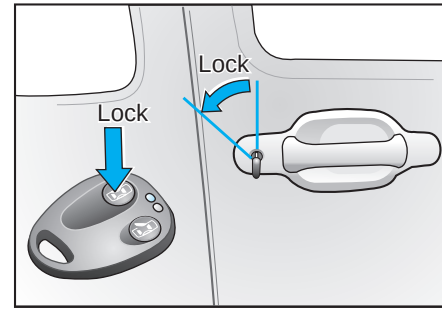
- Do not leave the remote control unit in direct sunlight or on the instrument panel.
- Do not treat the remote control unit carelessly.
- Do not allow the remote control unit to get wet.

KEYS AND LOCKS

Central locking system

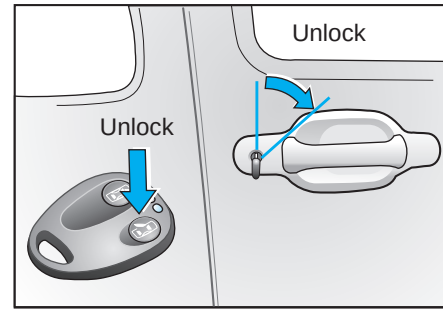
To lock:

Press the button on the remote control unit or turn the key in the driver's door lock towards the rear of the vehicle. Allow the key to return to its vertical position for removal.



To unlock:

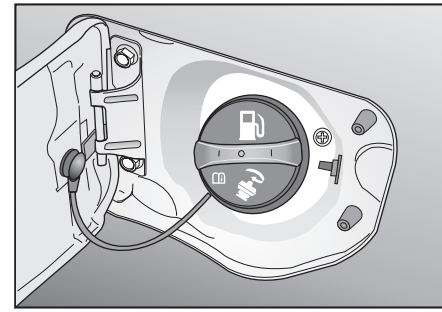
Press the button on the remote control unit or turn the key in the driver's door lock towards the front of the vehicle. Allow the key to return to its vertical position for removal.



Note: If the system is overloaded as a result of repeated operation at short intervals, the power supply is cut off for approximately 30 seconds.

Fuel filler door (if fitted)

Refer to Chapter 5.

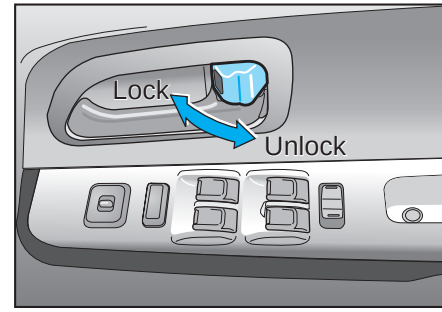


Glovebox

Refer to Chapter 1.

KEYS AND LOCKS cont.

Door locks



The doors are unlocked when the lock knob is pulled out, and the red indicator on the door lock knob is visible. The door is locked when the lock knob is pushed in and the red indicator on the door knob in not visible.

The doors may be locked behind you by pressing the lock knob in when the door is open, then shutting the door while the door handle is pulled outwards.

In addition, the front doors maybe locked or unlocked from the outside of the vehicle using the ignition key. Turn the key towards the rear of the vehicle to lock the doors and towards the front the vehicle to unlock the doors.

WARNING:

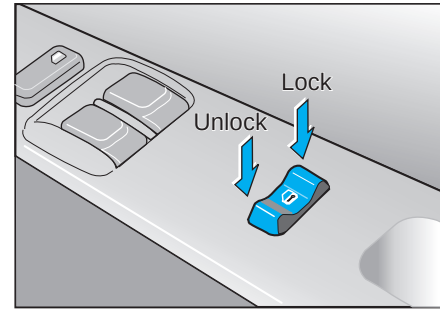
Before driving, ensure that the doors are closed and locked, especially when young children are in the vehicle.

Electric door locks (if fitted)

Electric door locks can be operated from the driver's door.

To lock the doors from outside of the vehicle, turn the key clockwise in the driver's door lock. To unlock the doors, from the outside of the vehicle turn the key anticlockwise in the driver's door lock.

All of the doors can be locked and unlocked while sitting in the vehicle, regardless of the ignition switch position.

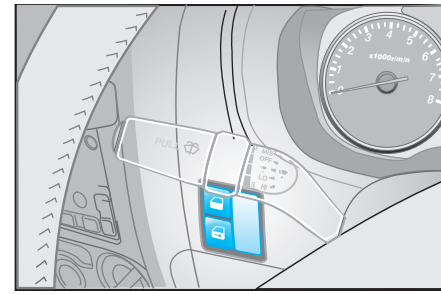


Crew cab and Space cab model

Crew cab and space cab models:

Press on the left-hand side of the toggle switch which is located on the armrests of the driver's door to unlock, or on the right-hand side of the toggle switch to lock.

Using the passenger's side toggle switch which is located on the passenger's door armrest will not affect any other doors.



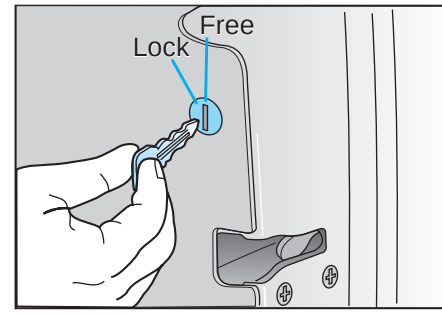
Single cab model

Single cab model:

Press the button, located on the dashboard to the left of the steering column, to lock the doors. To unlock the doors, press the button again.

KEYS AND LOCKS cont.

Child proof (if fitted)



The rear doors on the crew cab can be locked to prevent children from opening them from the inside.

To engage the child lock, open the rear door and locate the child proof lock on the doors rear edge. Insert the ignition key into the slot, as illustrated, and rotate the top of key towards the vehicle as far as possible. Close the door. The door cannot be opened from inside, regardless of the lock knob position.

To disengage the child lock, open the rear door and insert the ignition key into the child proof lock's slot. Rotate the top of key away from the vehicle as far as possible. Close the doors.

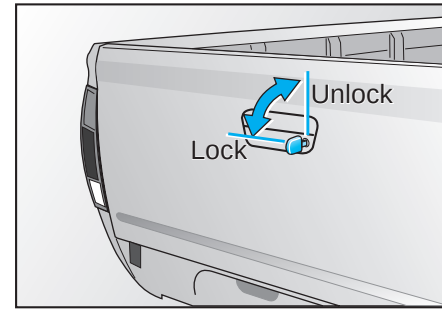
WARNING:

For safety, you should check that the lock is operating correctly by attempting to open the door from the inside after the lock has been engaged.

Tailgate lock (if fitted)

To lock:

Turn the key in the tailgate handle lock towards the horizontal of the vehicle. Allow the key to keep its horizontal position and remove.



To unlock:

Turn the key in the tailgate handle lock towards the vertical of the vehicle. Allow the key to keep its vertical position and remove.

Notes

CHAPTER 3

Know your vehicle

Page	
3-2	Seat adjustment
3-4	Head restraint adjustment
3-5	Seat belts
3-8	Which type of child restraint for your child?
3-9	Child restraints
3-11	Mirrors
3-12	Tilt steering
3-12	Windows
3-14	Interior lights and antenna
3-15	Sun visors, vanity mirror, assist grip and centre console
3-16	Centre console, rear ashtray (if fitted) and storage box (if fitted)

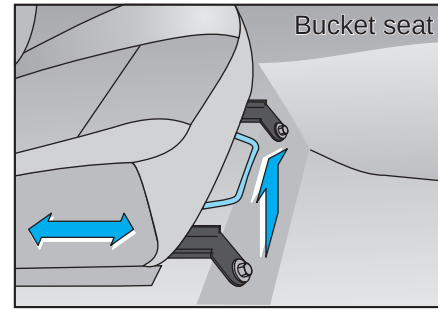
SEAT ADJUSTMENT

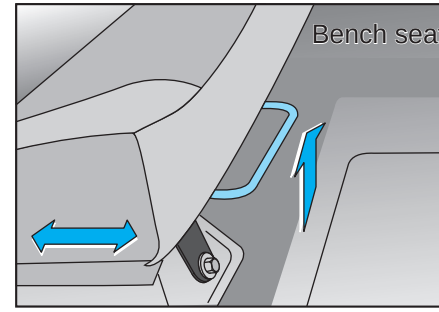
Driver's seat

Lift the lever at the front of the seat, then slide the seat forwards or backwards to the required position. Release the lever. Try to move the seat back and forth to check that the catch is fully engaged.

WARNING:

Do not adjust the driver's seat when the vehicle is moving, as the seat could move suddenly, causing the driver to lose control.





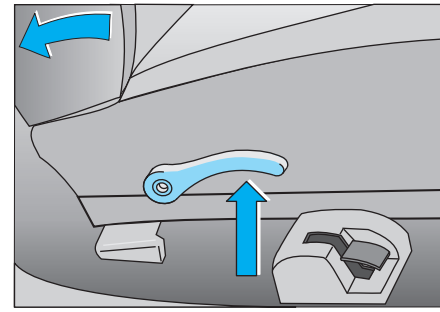
Seatback inclining (if fitted)

The back of the front seats can be adjusted as follows:

1. Sit in the seat.
2. Pull up the lever on the door side of the seat.
3. Adjust your weight against the seat-back until you reach the desired incline.
4. Release the lever.

WARNING:

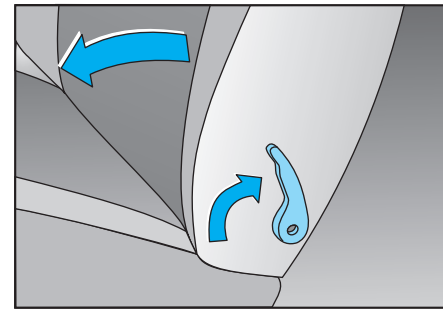
To avoid reducing the effectiveness of seat belts, seat-back rests should only be semi-reclined when the vehicle is moving.



SEAT ADJUSTMENT cont.

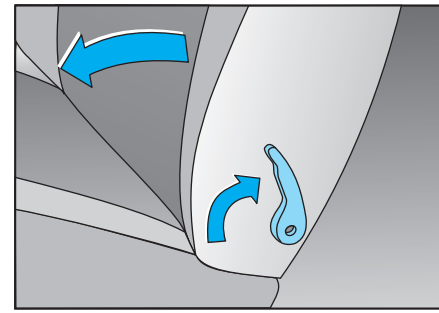
Walk-in system (space cab)

The passenger side seat features a walk-in system that allows the passenger side seat-back to fold down and the whole seat assembly to slide all the way forward. To operate the walk-in system, pull up the reclining lever. It is now easier to gain entry to the space behind the front seats.



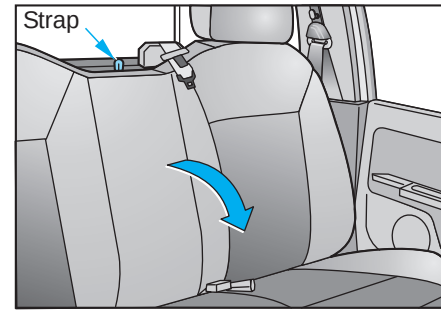
Dump system

Pull on the lever located on the door side of the seat, as illustrated, to enable adjustment of the seat-back incline.



Lowering the rear seat – crew cab

The rear seat in the crew cab model can be folded forward. To do this, pull on the strap located on the top of the centre rear seat, as illustrated.



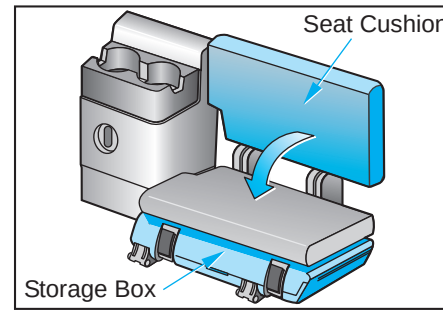
Rear seat – space cab (if fitted)

Assemble the rear seat as follows:

1. Fold the lid of the storage box into position and secure it with the storage box hooks.
2. Fold the seat cushion down on top of the storage box.

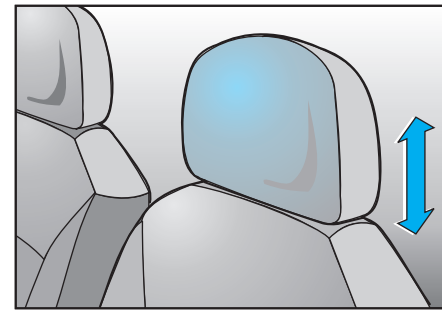
WARNING:

- Do not use the seat in the space cab unless approved seat belts are correctly fitted.
- Do not sit on this seat without the storage box being in position as damage to the seat will occur.



HEAD RESTRAINT ADJUSTMENT

Adjusting the head restraints



The head restraint is not intended as a headrest. It is provided for the reduction of whiplash and neck movement in the event of an accident.

To adjust the height of the head restraint, pull up or push down whilst pressing the lock button in.

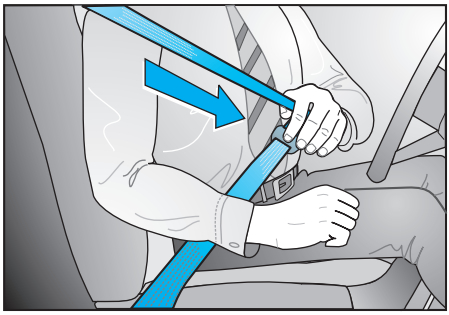
The upper edge of the head restraint should be approximately at eye level, and not at neck level.

WARNING:

- Do not drive the vehicle with the head restraints removed, since it will increase the risk of a neck injury in the event of an accident.
- Do not attempt to adjust the driver's head restraint while the vehicle is in motion. This could cause a loss of control of the vehicle.
- The head restraint safety feature is not intended as a headrest. It is solely for the reduction of whiplash neck movement in an accident involving your vehicle.

SEAT BELTS

Retractor belts



To put on the retractor seat belt, pull the metal tongue across your body and clip it into the buckle. When the metal tongue has locked safely into place you will hear a click. After fastening, settle the seat belt by running your hand under the seat belt starting at the hip, move your hand across to the buckle then up under the sash. Any extra seat belt length will retract automatically.

The lap section should be worn as low as possible across your hips, not on your waist. Ensure the sash and lap sections of the seat belt are free from twists and fit firmly.

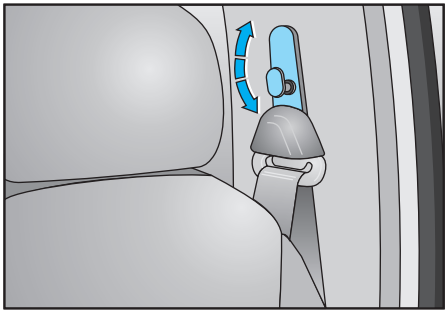
The emergency-locking retractor allows you to move freely while the vehicle is travelling normally. The retractor locks the seat belt immediately on fast braking, impact with a solid object or any quick movement by the wearer.

To release the seat belt, press the release button on the buckle and allow the seat belt to retract. Check that it fully retracts without twisting or turning.

Seat belt height adjustment

WARNING:

Do not attempt to adjust the seat belt height while driving, because it could cause loss of control of the vehicle.



- Push the height adjustment knob in the direction you require.
- Slide the seat belt guide to the desired height.
- Release the seat belt guide at the required position and ensure the seat belt guide has clicked into position.

Adjust the height so that the seat belt passes over the wearer's shoulder and rests against the shoulder. It must not pass over the neck or upper arm. Short people should select a low seat belt guide position and tall people a higher one.

Automatic locking ratchet mechanism

The seat belts for the rear seats and front passenger seat have an Automatic Locking Ratchet (ALR) function. When the ALR is activated, it allows the seat belt only to retract.

To activate the ALR, extend the seat belt to its maximum length.

To deactivate the ALR, allow the seat belt to fully retract.

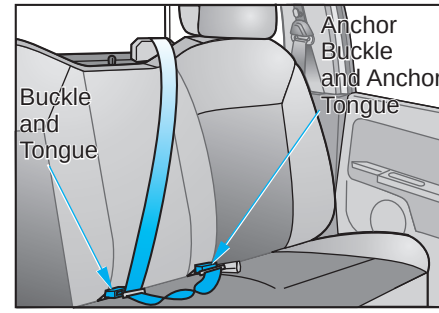
In these seating positions, the ALR may be useful as an additional means of locating the child seat in conjunction with the approved child restraint anchor points.

Note: When installing a child restraint, it is always better to install it in a rear seat.

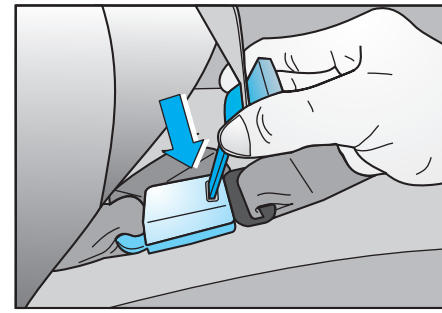
SEAT BELTS cont.

Rear seatbelts

To put on the seat belt, pull the shoulder portion of the seat belt down until the metal tongue reaches the buckle. Press the metal tongue into the buckle until it clicks into position.



To release the seat belt, press the release button on the buckle. If however, the metal tongue and buckle are firmly wedged together, insert the metal tongue from one of the other seat belts into the release button slot on the buckle, and pull the metal tongue free. In the event of this occurring contact your Holden Dealer.

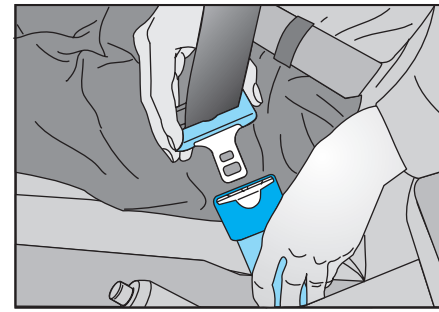


WARNING:

- The tongue must engage and lock inside the buckle for the seat belt to function properly.
- Ensure that the seatbelt buckle and metal tongue are locked.

Non-retractor belts (if fitted)

To fit the seat belt, sit up straight and well back in the seat. Bring the metal tongue adjuster across your body and clip it into the buckle. When the metal tongue has locked safely into place you will hear a click. Ensure the seat belt fits firmly across the lower hip area and not across your waist.



To shorten the seat belt, tilt the tongue adjuster away from your body and pull the seat belt through the seat belt adjuster.

To lengthen the seat belt, tilt the tongue adjuster away from your body and pull the seat belt from just below the finger grip bar. To release the seat belt, press the release button on the buckle.

SEAT BELTS cont.

Maintenance of seat belts

Check the seat belts regularly. Replace the seat belts if they become frayed or damaged. The buckle and retractor mechanism operations should also be checked. Your Holden Dealer will regularly do these things as part of the scheduled maintenance plan.

The seat belts must be replaced if they have been in use during a severe impact, even if there is no obvious damage.

Clean the seat belts only with a solution of mild soap and lukewarm water. Never use bleach.

Child restraints

If you are travelling with children in the vehicle, child restraints are required. (Refer to Child Restraints in this Chapter).

WARNING:

- Seat belts are designed to bear upon the bony structure of the body, and should be worn low across the front of the pelvis, or the pelvis, chest and shoulders, as applicable; wearing the lap section of the belt across the abdominal area must be avoided.
- Seat belts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they have been designed. A slack belt will greatly reduce the protection afforded to the wearer.
- Care should be taken to avoid contamination of webbing with polishes, oils and chemicals, and particularly battery acid. Cleaning may safely be carried out using mild soap and water. The belt should be replaced if webbing becomes frayed, contaminated or damaged.
- It is essential to replace the entire assembly after it has been worn in a severe impact even if damage to the assembly is not obvious.
- Seat belts should not be worn with straps twisted.
- Each seat belt assembly must only be used by one occupant; it is dangerous to put a belt around a child being carried on the occupant's lap.
- No modifications or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.
- The positioning of the tongue restrictor must never interfere with or stop the belt from fully retracting.

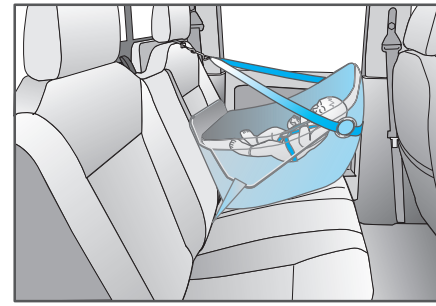
WHICH TYPE OF CHILD RESTRAINT FOR YOUR CHILD?

Children should be restrained at all times and fitted with a child restraint appropriate to their size when travelling in a vehicle. Following are some guidelines about selecting the appropriate restraint for your child.

Infants

Rearward facing infant capsule		
WEIGHT	HEIGHT	APPR OX. AGE
Less than 9kg	Less than 70cm	Up to 6 mths

Designed so that in the event of a collision, impact forces will be evenly spread over the baby's back, with minimal jarring to the vulnerable head and neck area.

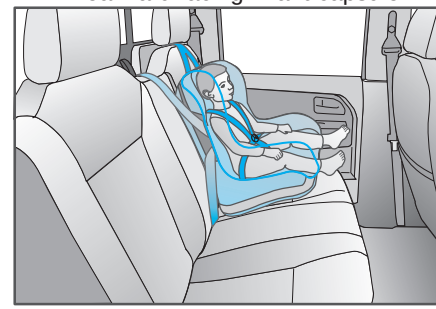


Rearward facing infant capsule

Young children

Forward facing child seat		
WEIGHT	HEIGHT	APPR OX. AGE
8 to 18kg	70 to 100cm	6mths to 4 yrs

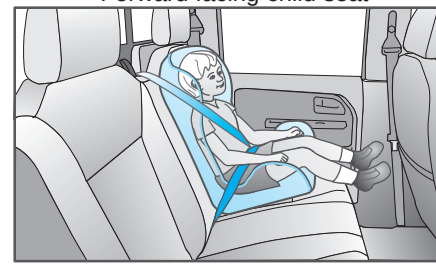
For use when the child is able to sit and easily hold his or her head upright. It is also possible to purchase convertible seats which can be used as a rearward facing infant restraint or converted to a forward facing child seat.



Forward facing child seat

Booster seat with lap / sash seat belt		
WEIGHT	HEIGHT	APPR OX. AGE
–	More than 100cm	4 to 10 yrs

When children outgrow a typical forward-facing child seat but they are still too small for lap / sash seat belts. A booster seat raises the child so that the knees bend comfortably, the lap / sash seat belt is correctly positioned and the child can see out the window. A rigid booster seat with a back, side wings and sash guide gives the best protection. In assessing the range of children who would benefit from booster seats, height is a better indicator than age or weight.

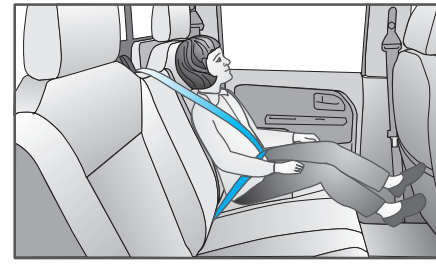


Booster seat with lap / sash seat belt

Older children

A child should use a normal lap / sash seat belt only when:

- he / she can sit against the back of the rear seat with knees bent comfortably at the edge of the seat,
- lap belt rests low and snug across the hips – not across the stomach,
- sash belt is centred on shoulder and chest,
- he / she is able to stay seated like this for the entire trip.



Adult lap / sash seat belt

CHILD RESTRAINTS

WARNING – EXTREME HAZARD:

- Do not use a rearward facing child restraint on a seat protected by an air bag in front of it. The child could be seriously injured if the air bag inflates, as the child's head would be very close to the inflating air bag.
- Never install a child restraint in the front seat of a vehicle fitted with Side Impact Air Bags (SIAB). Remember that it is safest for children to be seated in the rear seats.

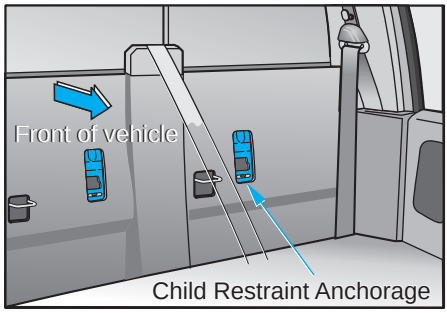
Children should be restrained at all times when travelling in a vehicle.

If a child cannot see out of the window, do not raise the child by means of an ordinary cushion. The cushion will not stay in place in the event of a crash, and the child would slip out of the straps and become entangled. Ensure that the seat belt fits firmly around the child restraint

WARNING:

- Child restraint anchorages are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstances are they to be used for adult seat belts, harnesses or for attaching other items or equipment to the vehicle.
- Only child restraints that have clips to attach to the vehicle's anchorage fitting (as shown in the following illustrations) are to be used. Earlier types of child restraints may not attach securely to this type of anchorage.
- Only Standards Australia approved child restraints and harnesses should be used. You should only purchase a child restraint which carries the appropriate Standards Australia sticker of approval.
- Where legally allowable, you may install a forward-facing child restraint in the front seat (without SIAB), but always move the passenger's seat as far back as it will go.

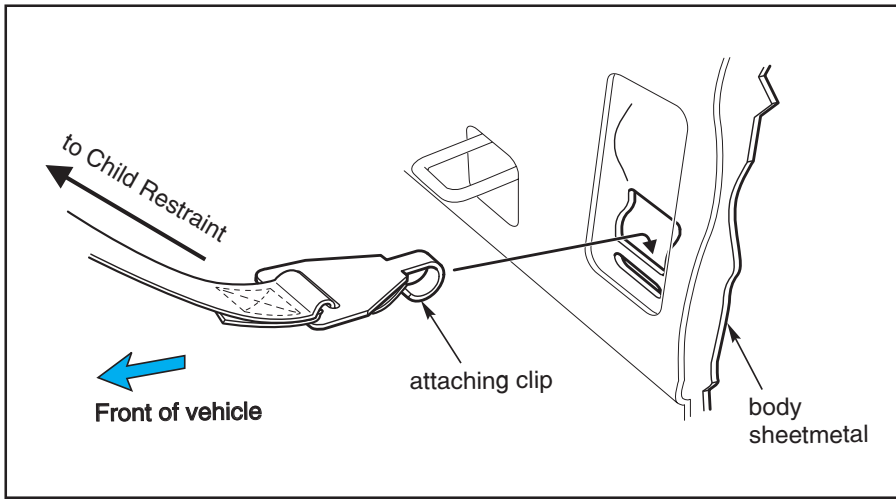
Crew cab models are fitted with three child anchorage locations: on the panel behind the rear seats (two are illustrated). Fold the rear seat forward to access these. The child restraint attaching clip fits directly on to the body sheetmetal.



CHILD RESTRAINTS cont.

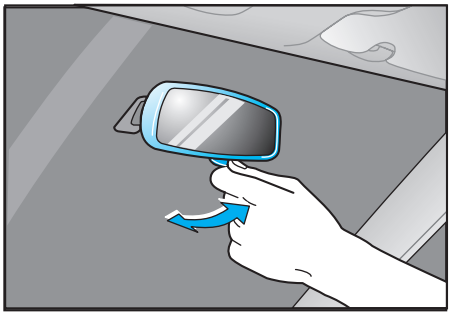
Anchorage fittings

The illustration shows how to install an attaching clip to an anchorage point.



MIRRORS

Inside rear view mirror

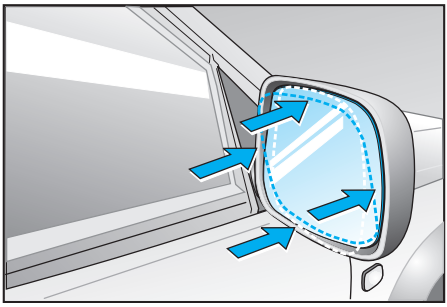


To adjust the rear view mirror, move the mirror right or left, up or down to gain the required angle.

The anti-glare lever on the lower edge of the mirror enables the reflector to be used during night driving. This reduces the glare, at night from the following vehicles headlights.

During normal daylight operation, the lever should be set forward. To reduce glare at night, move the lever towards you.

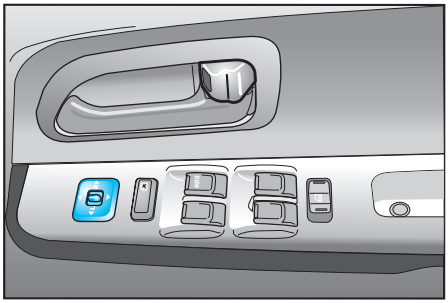
Outside rear view mirrors



Adjust the outside rear view mirrors so you can see not only each side of the road behind you, but also each side of your vehicle. This helps you determine where you are in relation to objects seen in the mirror.

When selecting the most suitable angle, ensure that the driver's head is in the normal position for driving, then adjust the mirror angle to suit.

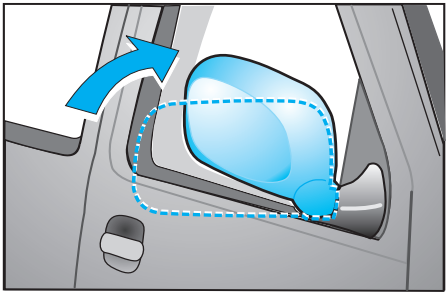
Electric mirrors (if fitted)



The adjustment switches for the electric mirrors are located on the driver's door and are operational when the ignition switch is turned to on or ACC. Moving the glass of the mirrors forcibly by hand will damage the electric mirror drive system.

Push the selector switch to the left to move the left mirror, or to the right to move the right mirror. Pushing the selector switch to the middle will disengage movement.

Push the edges of the square surrounding the selector switch to move the mirror up, down, left or right. It is not advisable to adjust the mirrors while driving.



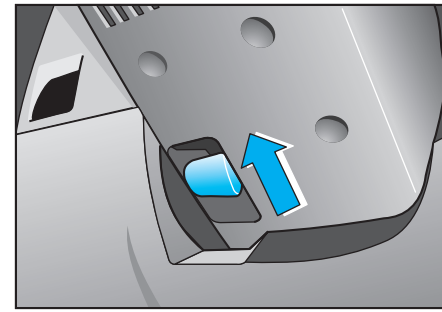
Fold back

The exterior mirrors can be folded forwards or rearwards. When driving off road it is recommended that the mirror heads be folded rearwards.

TILT STEERING AND WINDOWS

Tilt steering (if fitted)

The tilt steering lever is located on the under side of the steering column and has six adjustment positions. To adjust the height of the steering wheel, pull the lever towards you, this will unlock the steering column. Move the steering wheel to the desired height, then release the lever. Try moving the steering wheel up and down to ensure it is securely locked in position.

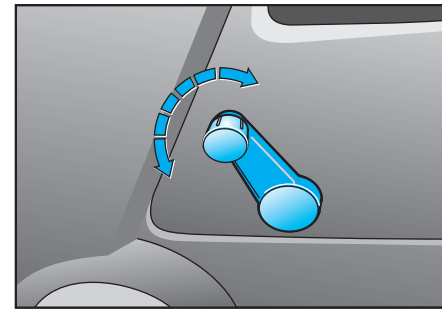


WARNING:

As with all the other driver position controls, do not attempt to adjust the steering wheel while driving.

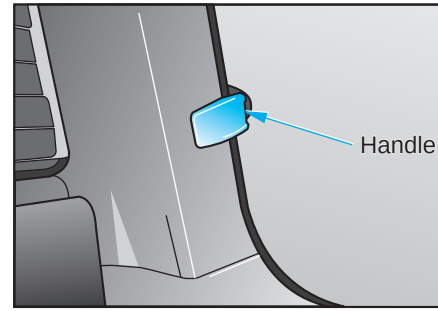
Window regulator handle

Turn the regulator handle to raise or lower the door windows.



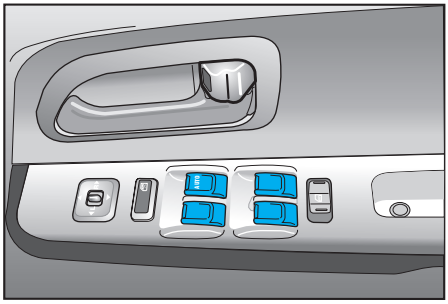
Quarter windows (space cab)

The quarter window on each side can be opened and closed by operating the catch handle.



WINDOWS cont.

Power windows (if fitted)



The main switches for the power windows are located in the driver's door. The front switches are for the front windows and the rear switches are for the rear windows (if fitted).

Individual switches are located on the front passenger door and in the rear doors (if fitted).

The switches for the power windows are operational when the ignition switch is on.

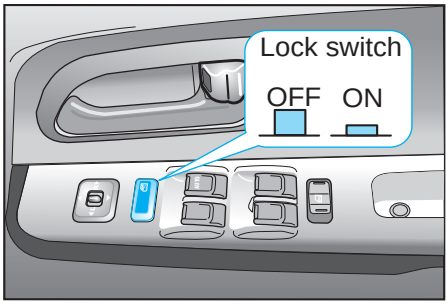
To open the driver's window, 'tap' the switch; the window will fully open.

To open a passenger's window however, push down on the switch and hold it down until the window reaches the desired position then release.

To close a widow, pull back on the switch until the window reaches the desired position.

The lock switch for the power windows is located on the driver's door armrest.

When the lock switch is in the on position the passenger's are not able to operate their own window. Press the lock switch again and the passenger's power window will be unlocked.



WARNING:

- To assure the safety of children and others, ensure that all passengers have their hands, etc. inside the windows.
- Remove the key when leaving the vehicle, to avoid unintentional window operation by children.
- Ensure the door lock switch is in the ON position when children are in the vehicle.

INTERIOR LIGHTS AND ANTENNA

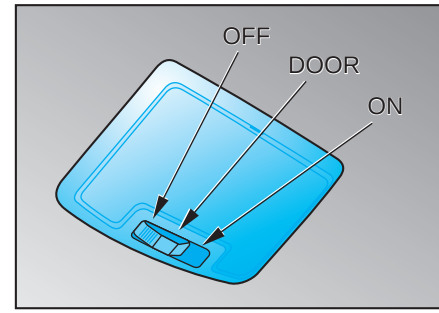
Interior (dome) light

The dome light is located in the centre of the roof and is operative regardless of the ignition switch position.

DOOR: The light will turn on when a door is opened and will turn off when all the doors are closed.

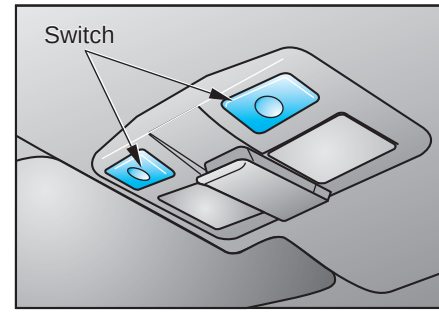
ON: The light will turn on regardless of the door position.

OFF: The light remains off.



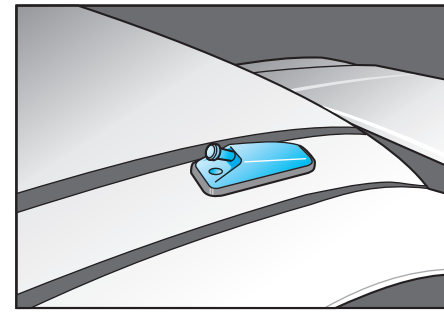
Map light (if fitted)

The map lights are located between the two sun visors. Push the switches to turn the map lights on and off (as illustrated).



Antenna

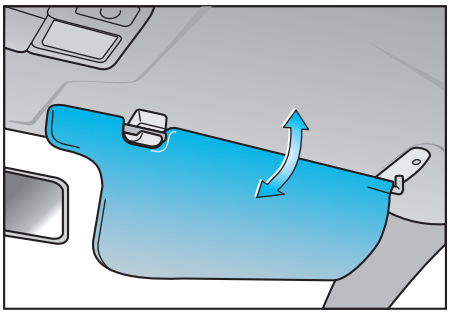
The radio antenna is located on the vehicle roof, above the driver's door. Pull out the antenna to gain a stronger radio reception.



SUN VISORS, VANITY MIRROR, ASSIST GRIP AND CENTRE CONSOLE

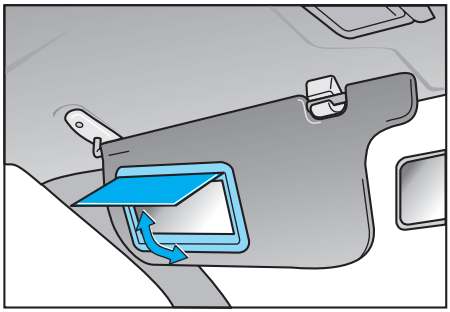
Sun visors

The sun visors are used to block out the sun. They can be pivoted to the side when unhooked.



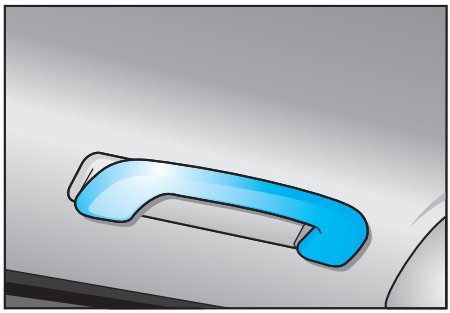
Vanity mirror (if fitted)

The vanity mirror is located on the rear side of the passenger's sunvisor.



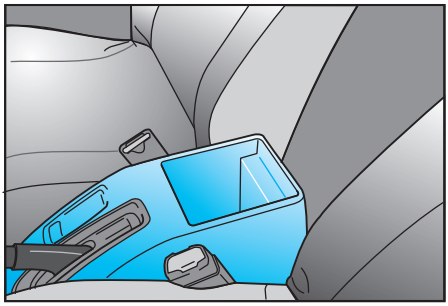
Assist grip (if fitted)

Assist grips are located above the driver and passenger windows to help occupants when getting in and out of the vehicle.



Centre console (if fitted)

The centre console is located between the two front seats.

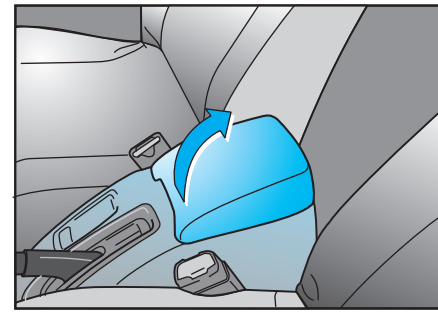


CENTRE CONSOLE, REAR ASH TRAY AND STORAGE BOX

Centre console (if fitted)

The centre console is located between the two front seats. Lift the front edge of the armrest to open the storage compartment.

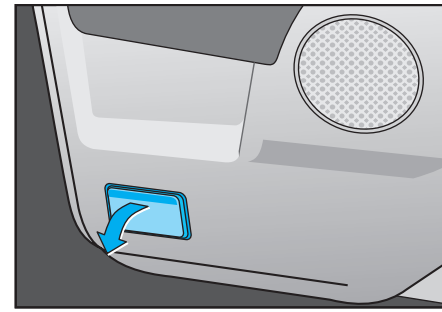
The armrest lid opens to a near vertical position and should not be forced any further backwards.



Rear ashtrays (if fitted)

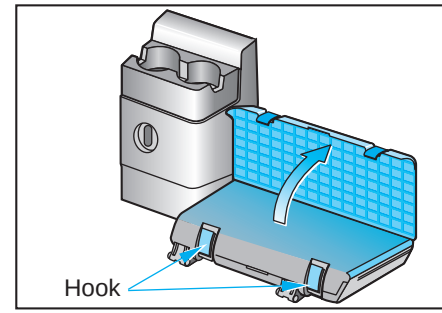
The rear ashtrays are installed on the inside of the rear doors (as illustrated).

To remove the ashtray, open it and press the retainer spring down. Pull out the ashtray.



Storage box (space cab)

A storage box is provided in the space cab model behind the front seats. To open the storage box lid, release the hooks and open the cover, as illustrated.



CHAPTER 4

Driving

Page	
4-2	Safety
4-3	Petrol engine starting
4-4	Diesel engine starting
4-5	Driving precautions
4-8	Your 4WD
4-12	Manual transmission
4-13	Automatic transmission
4-18	Four wheel drive system operation
4-23	Anti-lock brake system (ABS)

SAFETY

Before entering the vehicle

1. Check that windows, mirrors and lights are clean.
2. Check that the tyres are not flat.

Before driving off

1. Ensure that all doors are closed and secured.
2. Position your seat for comfortable driving.
3. Adjust rear vision mirrors.
4. **Fasten seat belts**.
5. Check that the warning indicators light up when you turn the key to start the engine, refer to Chapter 1.

   Automatic only: Have the ignition on and press the brake pedal before moving the T-bar away from the P position.

Parking

1. Apply the park brake.
2. Manual transmission: Place in reverse or first gear.

   Automatic transmission: Place in P (park) position.
3. Shut all windows.
4. Switch off all exterior lights.
5. Turn the ignition key to lock ● and remove the key.
6. Lock all doors.

WARNING:

- To avoid the possibility of injury, always fully apply the parking brake before exiting the vehicle.
- With the ignition switch in the on position, check that the 4-wheel drive indicator light, the 4L indicator light, and the check 4WD indicator light are either on or off (not blinking). If one or more of the indicator lights are blinking, the vehicle may roll down a steep incline. If your vehicle is equipped with an automatic transmission, ensure the shift lever is fully engaged in the P (park) position.
- Be careful where you park or drive. As with any vehicle, do not park or operate this vehicle in areas where combustible materials such as dry grass or leaves can come in contact with the hot exhaust system.
- Never leave the engine running in an area such as a closed garage or underground car park.

PETROL ENGINE STARTING

1. Apply the park brake firmly and release it only after you have started the engine and are ready to drive off.

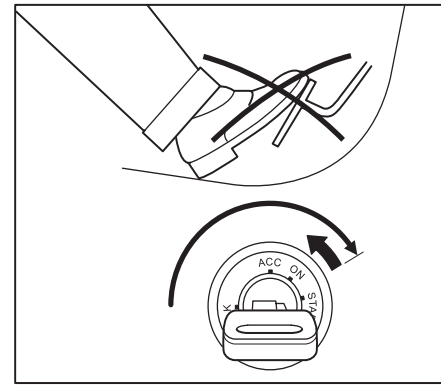
2. **Manual:** Press the clutch pedal in fully and move the gear selector lever to the N (neutral) position. The clutch pedal can now be released.

   Automatic: Move the shift lever to the P (park) or N (neutral) position. The engine will not start if it is in any other position. As a safety precaution, you should have your foot on the brake pedal in order to shift the transmission lever out of the park position.

3. Start the engine as outlined below:

   For cold or hot starting the procedure is the same. Do not touch the accelerator pedal. Simply turn the key to the start position, and release when the engine has started.

   If the engine does not start in 10 seconds, wait another 15 seconds to let the starter motor cool down. Turn the key to start again with the accelerator pedal pushed completely down to the floor for a maximum of 10 seconds. If the engine still does not start, release the key and pedal. Wait another 15 seconds and then repeat the entire procedure. If the engine still fails to start, contact your Holden Dealer.



PETROL ENGINE WARNING:

When trying to start the engine, do not hold the key in the start position for any extended time, for if unburnt fuel were to reach the catalytic converter and ignite, the catalytic converter could overheat or be destroyed by backfire.

Note: You should not subject the engine to high load conditions (for example full throttle acceleration or high speeds) until it has completely warmed up. Otherwise, you may cause premature engine wear or engine damage.

DIESEL ENGINE STARTING

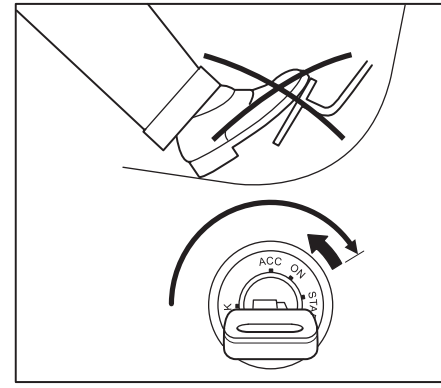
Glow plug indicator light

The diesel engine has a special starting system. It has small heating elements called glow plugs, which warm the engine for improved starting.

Turn the ignition switch to the on position, the glow plugs will start warming the engine. The glow plug light located on the tachometer face (refer to Chapter 1), will illuminate.

When the glow plugs have heated the engine enough for it to start (2 to 7 seconds when the engine is cold), the glow plug indicator light will go out. The engine is now ready to be started.

Starting the engine



1. Apply the park brake firmly and release only after you have started the engine and are ready to drive off.
2. **Manual:** Press the clutch pedal fully in and move the gear shift lever to the neutral position. The clutch pedal can now be released.

   Automatic: Move the shift lever to the P (park) or N (neutral) position. The engine will not start if it is in any other position. As a safety precaution, you should have your foot on the brake pedal in order to shift the transmission shift lever out of the P position.
3. Start the engine as outlined below:
   - For cold or hot starting the procedures are the same. Do not touch the accelerator pedal. Simply turn the key to the start position and release when the engine starts.
   - Do not keep cranking the engine for more than 30 seconds if the engine fails to start. Wait for 30 seconds before trying again. If the engine still fails to start, contact Roadside Assistance.

Turbo operating precaution, engine starting

Do not operate the engine above idle before normal engine oil pressure has been established (such as applying full throttle immediately upon initial start-up). This causes the turbocharger to operate at excessive speed before the bearings receive adequate lubrication. Operation of the turbocharger for a period as short as five seconds without sufficient oil can cause bearing failure.

DRIVING PRECAUTIONS

Rodeo handling

The specific design characteristics of the Rodeo give it a higher centre of gravity than ordinary vehicles. Its high ground clearance makes it capable of performing in a wide variety of off-road applications. It is not designed for cornering at the same speeds as conventional passenger cars. Therefore, sharp turns or abrupt manoeuvres should be avoided at all times. As with other vehicles of this type, failure to operate this vehicle correctly may result in loss of control and / or vehicle roll over. Always use your seat belts.

Running-in

These days, there is no need to follow the formal running-in schedule. However, by observing a few simple precautions during the first few hundred kilometres of driving you will greatly assist your vehicle's future performance and economy.

For the first 500 km, do not exceed 90 km/h. Up to 1500 km, avoid driving at any one speed, either slow or fast, for any length of time.

Include some higher speeds during this period. Always drive at moderate speed until the engine has completely warmed up.

For the first 500 km heavy braking should be avoided, except in an emergency, since brake misuse during this period could impair future braking efficiency.

It is best to drive your new vehicle for 1500 km before towing a load. If you must tow before this do not exceed 80 km/h on good roads. No heavy off road towing should be attempted before 1500 km.

Off-road

Following a period of off-road driving, particularly in wet weather, the front of the vehicle should be hosed down to clear any accumulation of mud. In particular, pay specific attention to both sides of the radiator.

Engine misfire warning

If the engine is misfiring, reduce the vehicle speed and do not attempt to tow a caravan or trailer, until the misfiring is corrected by the nearest Holden Dealer. Continued driving while the engine is misfiring could result in the catalytic converter and exhaust system overheating, resulting in vehicle damage.

Loose articles

Do not leave loose articles or luggage in the passenger compartment. Whenever possible, stow articles in the tray area.

WARNING:

Gas cylinders can leak, creating a risk of fire or explosion. As a precaution, ensure adequate ventilation when carrying gas cylinders. They must be restrained from rolling around, and where possible, placed in the load area of the vehicle. It is recommended that if gas cylinders are frequently transported that a purpose built carrying compartment be used. Transportation of gas cylinders is regulated by legislation in some states.

DRIVING PRECAUTIONS cont.

Loading the vehicle

Loading the vehicle changes the mass distribution and therefore the handling of the vehicle when driving. After loading the vehicle, extra care should be taken to become familiar with the feel of the vehicle while driving. Refer to Chapter 10. Refer to Chapter 7 for information on tyre pressure when the vehicle is loaded.

Tyre grip

When driving on wet or slushy roads, it is possible for a wedge of water to build up between the tyre and road surface. This phenomenon, known as aquaplaning, may cause partial or complete loss of grip, which will affect the steering and braking of the vehicle. To reduce the possibility of aquaplaning:

- Reduce speeds during rainstorms.
- Replace tyres when tread wear indicators are visible.
- Regularly check that tyres are properly inflated.

Brakes

Power assisted brakes, which are fitted to your vehicle, utilise vacuum from the engine when it is running. Never let the vehicle run down steep inclines without the engine running. Never coast with the engine switched off.

A decrease in driving, cornering and braking traction occurs when water, snow, ice, gravel or other materials are on the road surface. Driving practices and vehicle speed should be adjusted to suit the road conditions.

Driving through water may affect performance. Applying the brakes lightly will indicate whether they have been affected. To dry them quickly, lightly apply the brakes while maintaining a slow forward speed with an assured clear distance ahead until brake performance returns to normal.

Brake pedal travel should not be obstructed by ill-fitting floor mats or any other material under the pedal which causes interference with normal pedal movement.

Your seat should be positioned so that you can push the brake pedal satisfactorily under all braking conditions.

Power steering (if fitted)

The steering system fitted to your vehicle is power assisted. It has been designed to reduce steering effort. Care should be taken not to hold a prolonged turning force on the steering wheel when the steering is at left or right lock when stationary (e.g. during parking manoeuvres) as this creates high operating temperatures and pressures within the system.

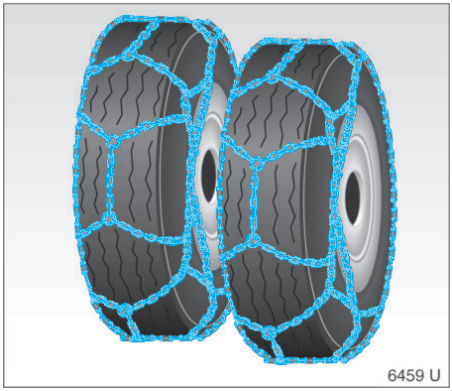
If the power assistance for the steering is not working, due to the engine stalling, etc, the vehicle can still be steered. However, due to the much greater effort required to steer, it is recommended that you have the problem fixed promptly.

DRIVING PRECAUTIONS cont.

Snow chains

When driving or fitting snow chains, ensure the following are observed:

- Snow chains may be used on 4WD front wheels.
- Snow chains may only be used at speeds up to 50 km/h.
- When driving on roads that are free of snow, snow chains should only be used for brief periods, as they will wear quickly and may snap.
- The part of the snow chain that covers the tyre tread should not be thicker than 13 mm. The part of the snow chain that wraps around the side of the tyre should not be thicker than 15 mm (including the chain clasp). The use of thicker chains may cause damage to the body of the vehicle.



YOUR 4WD

Mobile phones and CB radios

Mobile phones and CB radio equipment, which use an integrated antenna, may temporarily affect the vehicle's electronics (permanent damage is unlikely) when used inside the vehicle, due to the interference created when transmitting.

Therefore, mobile phones and CB radio equipment that use an antenna fitted to the outside of the vehicle, should be used whenever possible.

If phones or CB radios with an integrated antenna must be used inside the vehicle, care should be taken not to operate near the dashboard area.

Driving on sealed roads

WARNING:

Do not use 4WD for normal driving on sealed roads. It will cause unnecessary noise, poor fuel consumption and stress 4WD components.

The increased traction of 4WD vehicles offers greater driving control in adverse road conditions, particularly heavy snow and ice. However, four-wheel drive vehicles are not skid-proof. It is usually easier to control a skid in a conventional car than a four-wheel drive vehicle, skidding in the same circumstances.

When the conditions are severe enough to warrant engaging 4WD on sealed roads, remember the following:

- Drive slowly in the lower gears, according to the road and weather conditions.
- Use the accelerator pedal to control the vehicle.
- Keep the use of the brake pedal to a minimum.
- Do not slip the clutch or spin the wheels.
- Do not make excessive or jerky steering movements.
- Off-road 4WD vehicles have a higher centre of gravity, so always approach curves at an appropriate driving speed. Do not attempt to go as fast through turns as you might in a conventional 2WD car. Likewise, strong crosswinds can affect the normal steering of the vehicle and could lead to loss of vehicle control. Drive slower under strong crosswind conditions.
- As with all driving, exercise caution when in slippery conditions (caused by sand, gravel, water, snow or ice on the road) in order to maintain vehicle control.
- When driving in snow or ice, select 4L or 4H (depending on the conditions); start the vehicle moving with minimal engine revs, low gear and combined clutch and accelerator control; do not slip the clutch excessively; change to a higher gear as soon as possible, keeping the engine revs low to prevent wheelspin.

Driving through water

When driving through water ensure the following is observed:

- Know the depth of the water; choose the lowest entry and departure angles before entering.
- Select 4L and 1st gear; maintain a steady engine speed and avoid splashing to help prevent water from entering the exhaust system if the tailpipe is below the water level.

YOUR 4WD cont.

- Drive with the flow wherever possible. If you have to drive against the flow, try to drive at an angle to it so that the leading corner of the vehicle will help deflect the water from the engine compartment.
- Avoid splashing the water – if the ignition system becomes wet the vehicle may stall.
- Ensure the water does not enter the engine air intake system, as engine seizure and costly damage may result.
- Test the brakes after you have left the water. Wet brakes are less effective than dry ones. To dry the brakes faster, drive the vehicle slowly while applying light pressure to the brake pedal.
- After driving through water, perform the following checks for water contamination at the earliest opportunity:
  - Renew any lubricating oil that has a milky appearance, indicating contamination with water.
  - Check the air cleaner element
  - Check the engine
  - Check the transmission and the axles.
  - Check the interior of the vehicle.

Off-road driving

When driving off-road you will encounter various driving conditions too numerous to list here. Always think ahead and use common sense. If you feel uncomfortable about tackling a given situation, do not do it.

Gripping the steering wheel: Rough terrain can cause rapid and unexpected movement in the steering. Be ready to deal with these movements by having a firm grip on the outer rim of the steering wheel with the thumbs outside the spokes (to guard against injury from steering wheel kickback).

Preparation: The duration, distance and conditions of the off-road activity determines the extent of the preparation that is required. The following are given as guidelines:

- Know the area where you will be driving, either by inspection or from maps. Decide your route in advance.
- Make a thorough check of the vehicle: oil, water, fuel, brake and clutch fluid levels, drive belts, lights and windscreen wipers and washers.
- Ensure that the tyres (including the spare) are inflated to the correct pressure and are suitable for the prevailing off-road driving conditions.
- Off-road or mud and snow tyres, which are standard, have larger tread profiles designed to give better grip.
- Check the jack and wheel changing tools, and include a board or plate for supporting the jack on soft ground.
- Carry emergency equipment, i.e. spade, first aid kit, vehicle spares etc.
- A 13 metre tow rope should be carried to allow a recovery vehicle to be clear of adverse ground.

YOUR 4WD cont.

- Secure all loose items and luggage that may cause injury if thrown around the passenger compartment in bumpy conditions. Avoid carrying heavy loads on the roof. Make sure all doors, the tailgate and the bonnet are firmly closed.
- Avoid protruding objects (such as rocks or tree stumps) that may damage the underbody or tyres.
- Test the brakes after operating in mud to clear excess mud from the braking mechanisms.
- Use the fall-line of the slope or hill and set your vehicle to traverse this with the steering centred. Never drive diagonally across a slope.
- The ground clearance, ramp angle, angle of approach and departure, tilt angle and wading depth need to be considered, especially in hilly conditions and when wading, to prevent the vehicle becoming stuck and possibly damaged.
  - Approach Angle 31°
  - Departure Angle 25°
  - Ramp Breakover Angle 19°

Recovery and towing

When recovering or towing a vehicle off-road, observe the following:

- A greater force is required to move a vehicle from or through mud than when on a firm road surface. Ensure the steering wheel is centred.
- Attach the tow rope to the towing eye of the vehicle, not to the axle.
- Where possible, drive both vehicles forward to effect a recovery, using the appropriate gear to avoid excessive wheelspin.
- Avoid the use of reverse gear because of the possible resultant wheelspin.
- Stay clear of the tow rope. **Breaking ropes can cause serious injury.**
- Ensure tow rope is of sufficient strength.

Cleaning after off-road driving

Clean the vehicle thoroughly and as soon as possible after driving off-road, particularly after muddy conditions (for cleaning instructions refer to Chapter 11). Areas on your vehicle that will require extra attention are as follows:

- Do not let mud remain dry on the vehicle as it becomes abrasive and can damage paint, glass, seals, bearings and brake components. If left to build up, mud can seriously affect the air flow through and over mechanical components. This may cause overheating and failure of parts, especially in the engine compartment.
- Clean the tyre treads.
- To maintain proper cooling air flow ensure the radiator core and the area around the radiator is cleaned.
- Check the radiator and cooler cores for blockage (sand, silt, etc).

YOUR 4WD cont.

- Clean the underside and mechanical parts of the vehicle, particularly the following areas:
  - Driveshafts, including sealing bellows.
  - Front brake callipers, pads and discs.
  - Front suspension.
  - Clutch fork sealing bellows.
  - Rear brakes.
  - Rear suspension.
  - Fuel tank.
- The wheels must be removed to clean all mud and stones from the brake callipers, and to check brake pad wear.
- Ensure the breathers for the axles and fuel tank are fitted and undamaged.

Maintenance and off-road driving

Proper maintenance at all times ensures that the warranty remains valid, repair costs are kept to a minimum, vehicle performance and capabilities remain high, and driver and passenger safety is maintained.

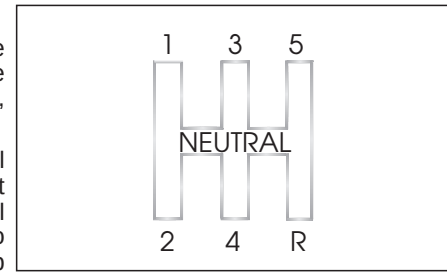
If you drive your vehicle off-road to a great extent, it is recommended that you have the chassis inspected more frequently.

The maintenance intervals recommend in Chapter 12 are dependent on the severity of the operating conditions. Therefore, under extreme operating conditions, e.g. driving on unsurfaced roads (with thick dust or mud accumulation etc. prevalent), additional maintenance operations, e.g. changes of engine oil, oil filter and air cleaner element and checking of brake pads; should be performed at shorter intervals. Refer to Chapter 12 for details .Your Holden Dealer will inform you which additional service is required between the normal service intervals after consideration of the specific operating conditions of your vehicle.

MANUAL TRANSMISSION

Shift pattern

The manual transmission system has five fully synchronised forward gears and one reverse gear. The shift pattern as illustrated, is found on the top of the gear shift lever.



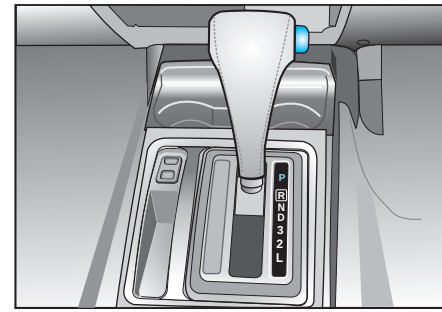
Never attempt to engage reverse gear until the vehicle has completely stopped. A slight pause between pressing the clutch pedal and moving into reverse gear is desirable to allow all the rotating components to stop and avoid gear crashing.

Operating notes

- When shifting from one gear to another, ensure you press the clutch pedal in fully to avoid clashing, and possible chipping, the transmission gears.
- Shift the gear with a moderate effort to allow time for the transmission synchronisers to work properly.
- Whenever reverse is selected with the ignition on, the reversing lights will operate.
- Do not drive with your foot resting on the clutch pedal as damage to the clutch may result.
- When stopped on an incline do not hold the vehicle by slipping the clutch. Use the brakes.
- When climbing steep grades, change down to a lower gear before the engine starts to labour. To maintain safe speeds on a steep downgrade and to reduce brake wear and overheating, shift into a lower gear before starting the decent.
- Do not over speed the engine when shifting down to the next lowest gear.

AUTOMATIC TRANSMISSION

This system has a four-speed automatic transmission. Its shift indicators are arranged with P (park) at one end, followed in sequence by R (reverse), N (neutral) and then the forward driving ranges.



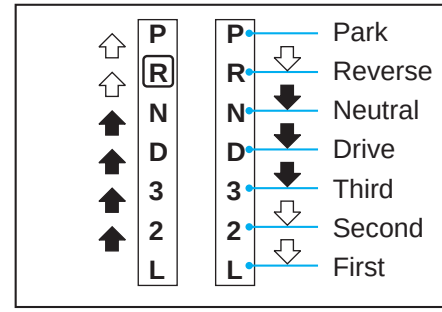
To prevent the vehicle from 'creeping' you should always have your foot on the brake pedal when shifting out of P.

The shift lever can be shifted freely into any position indicated by the arrow ➡. The lever cannot be shifted into any position indicated by the arrow ⇨ without pushing in the button located on the end of the shift lever.

Note: The engine will not start unless the shift lever is in P or N.

WARNING:

You can select some transmission positions without pressing in the button on the shift lever. However, it is recommended that you become familiar with these positions to prevent any accident that may occur due to incorrect operation.



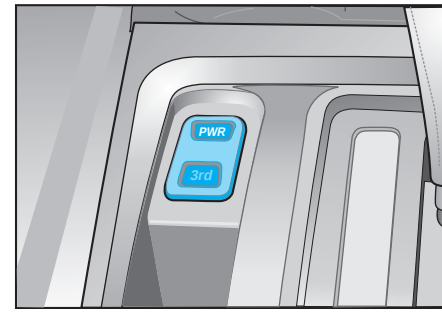
Note: If the shift lever will not move from the P position, even after the above instructions are followed, perform the following steps:

1. Check the parking brake is fully applied.
2. Turn the ignition switch to ACC.
3. Move the shift lever from park to neutral, then start the engine again.
4. Press in the brake pedal and operate the shift lever.

Have the transmission checked by your Holden Dealer as soon as possible.

AUTOMATIC TRANSMISSION cont.

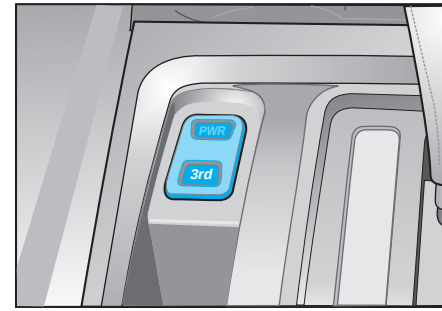
Driving mode switch



For ordinary driving conditions, the normal driving mode is used. This mode is active unless another mode is selected.

When faster acceleration is required, press the PWR button, which is located on the left-hand side of the transmission shift lever. The power mode provides higher shifting speeds. The power drive indicator light on the tachometer face will light up when this mode is active.

3rd mode switch



The 3rd mode switch is used when driving on slippery muddy roads. This mode forces the vehicle to operate in 3rd gear, providing better traction and safer vehicle operation.

Note: On the HFV6, take-off is in 3rd gear, but the transmission will change into 4th gear as normal.

To use 3rd mode, press the 3rd mode button, which is located on the left-hand side of the transmission shift lever. For the 3rd mode to engage and operate, on an HFV6 the transmission shift lever must be in D, N, R, P or 3, or on a 4JH1-TC the transmission selector must be in D and the vehicle must be moving less than 11 km/h.

The 3rd indicator light on the tachometer face will light up when this mode is active, refer to Chapter 1.

To disengage the 3rd mode:

4JH1-TC:

- move the shift lever to any position other than D,
- press the 3rd mode button again, or
- turn the ignition key to the off position.

Note: The 3rd mode will automatically disengage whenever vehicle speed exceeds 34 km/h

HFV6

- The 3rd mode button must be pushed again to disengage.

Use the 3rd mode only for slippery road conditions. Using it under ordinary driving conditions will result in sluggish performance and rise in automatic transmission fluid temperature.

AUTOMATIC TRANSMISSION cont.

Automatic transmission defaults

HFV6 PETROL

If the CHECK TRANS warning light is illuminated, the computer controlling the transmission has found a problem. The vehicle can be driven when the light is illuminated, however, it should be checked by your Holden Dealer as soon as possible.

Depending on the nature of the problem, the transmission may still be able to change gears without your assistance. However, in some cases the transmission's computer may put the transmission into safety mode. In safety mode the transmission may not shift automatically, you must then shift the transmission lever to select gears manually. Refer to the table shown. The shift feel is firmer to prevent slipping and consequent wear.

Selected Lever Position	Gear Ratio Default
P	Park
R	Reverse
N	Neutral
D	3rd
3	3rd
2	3rd
L	1st

4JH1-TC DIESEL

If the CHECK TRANS warning light flashes, the computer controlling the transmission has found a problem. The vehicle can still be driven when the light is flashing, however, it should be checked by your Holden Dealer as soon as possible.

If the vital components of your vehicle malfunction, the Transmission Control Module fixes the transmission in 3rd gear. Refer to the table shown.

Selected Lever Position	Gear Ratio Default
P	Park
R	Reverse
N	Neutral
D	3rd
3	3rd
2	3rd
L	3rd

AUTOMATIC TRANSMISSION cont.

Uphill / downhill transmission control system

The uphill / downhill transmission control system operates only when the shift lever is in the D position. Unnecessary gear changes and lockups are eliminated to provide smooth climbing.

- On steep uphill grades or when towing a heavy load, the system senses lack of engine torque in the upper gear and prevents upshifting (2nd to 3rd or from 3rd to 4th) or lockup. Frequent gear changes are eliminated.

On 4JH1TC vehicles using automatic transmission the following two points apply:

- On steep downhill grades, the system automatically downshifts when you apply the foot brake. Engine braking power is utilised to reduce the service brake load.
- The system automatically downshifts from 4th gear to 3rd gear on a downhill grade when:
  - the steepness exceeds a preset level, and
  - the brake pedal is applied.

P (park)	This stops the rear wheels from turning and should be selected (together with the park brake) when leaving the vehicle. Never select P until your vehicle is fully stopped. The P position is one of only two positions (the other is N) in which your engine may be started.
R (reverse)	Never select R until your vehicle is fully stopped. The reversing lights will operate when R is selected and the ignition is on. After reversing, make sure the vehicle has fully stopped before proceeding forward again.
N (neutral)	This is the out-of-gear position. You may restart a stalled engine while the vehicle is still moving or stopped.
D (drive)	This is the normal forward driving position and allows the transmission to choose the appropriate gear (1st through to 4th) for the driving conditions and optimum fuel economy.
3 (third)	This position allows the transmission to shift between 1st, 2nd and 3rd gear as conditions require. 4th gear is excluded. Use this position when going down a long hill or on a road with many sharp curves. Shift back into the D position to return to normal driving.
2 (second)	This position allows the transmission to shift between 1st and 2nd gear. Use this position when going down a moderate gradient where you want to slow down a little without using the brake. Shift back into the D position to return to normal driving.
L (low)	The transmission cannot shift out of 1st gear when in this position and should only be used when strong braking effect is needed on a very steep hill. The shift lever can be shifted back to L at any speed. However, the transmission will not actually enter 1st gear until vehicle speed is below 36 km/h (petrol engine), 41km/h (diesel engine). Remember to shift back to D to resume normal driving.

AUTOMATIC TRANSMISSION cont.

Operating notes

- Do not go from P or N to R or D with the accelerator pedal pressed.
- When driving down a long hill, reduce your speed and select a lower range. The engine will provide a braking effect. Remember if you ride the brakes, they may overheat, resulting in reduced performance. This is particularly important when towing.
- Be careful when accelerating, shifting up, shifting down or braking on a slippery surface. The abrupt change in engine speed, such as sudden acceleration or engine braking, could cause the drive wheels to spin or skid.
- Do not press the accelerator pedal with the brakes on in either L, 2, 3, D or R. This will overheat the transmission.
- Do not use the accelerator pedal to hold the vehicle on a slope, use the brakes.
- Do not coast the vehicle in N as this lessens your control and the engine braking power.
- Always slow down in gusty crosswinds.
- Refer to Chapter 7 for checking automatic transmission fluid level.

FOUR WHEEL DRIVE SYSTEM OPERATION

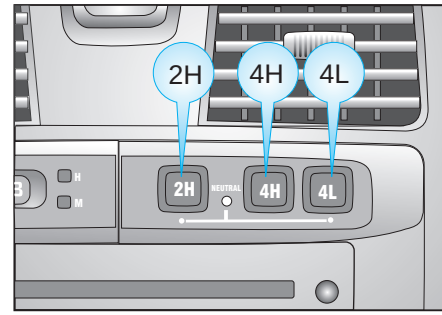
WARNING:

Never operate the transfer control system (except from two wheel drive high range (2H), to four wheel drive high range (4H), or vice versa) while the vehicle is moving, the engine revolutions are above 2,000 r.p.m. or the transmission is not in the correct position.

Note: Do not use four wheel drive (4WD) for normal driving on dry pavement. It will cause unnecessary noise and wear, and poor fuel economy.

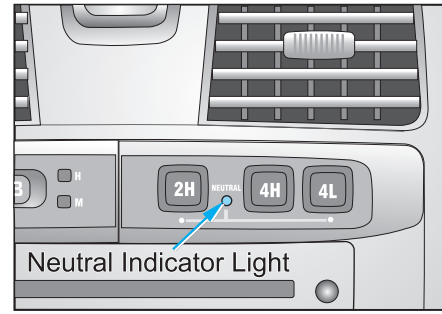
Shift on the fly system

Shift on the fly is a device used to connect the front wheels to, and disconnect them from, the driving axle. These operations are automatically changed when the 4WD switch is pushed in and the vehicle is running straight.



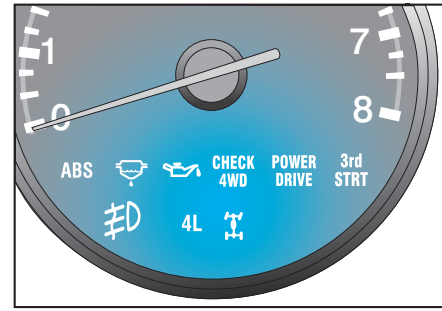
Transfer shift switch panel

The transfer shift switch panel is located on the dashboard below the right-hand centre vent. The transfer shift switch panel permits the driver to select two wheel drive high (2H), four wheel drive high (4H) or four wheel drive low (4L).



Transfer indicator (4WD, 4L, CHECK 4WD, NEUTRAL)

The transfer indicator light ⌑ is located on the tachometer face. The transfer indicator light ⌑ is provided with a bulb check function that will illuminate the transfer indicator when the ignition switch is turned to the on position, and will go out after approximately two seconds. However, the light that indicates the vehicle condition at that time will remain on.

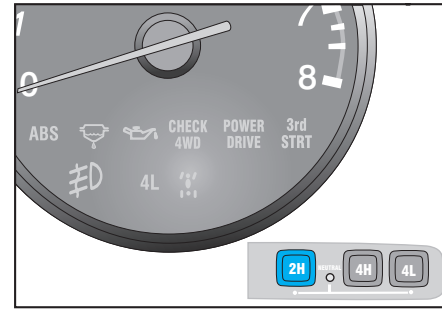


When selecting a different mode on the transfer shift switch panel (e.g. 2H to 4H) the respective indicator light will blink slowly (2Hz) while the transfer control system is in transit. Once the operation is completed the light will stop blinking and the indicator light will remain on or off depending on what action you have selected.

FOUR WHEEL DRIVE SYSTEM OPERATION cont.

2H (high range, 2-wheel drive)

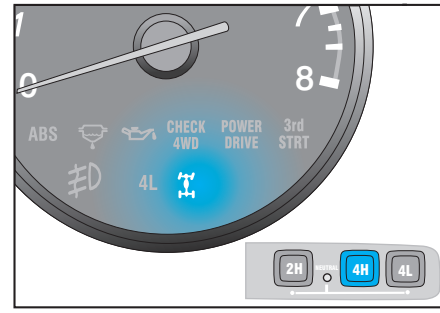
Use this for normal driving on sealed roads. This position gives greater economy, quieter ride and least drivetrain wear.



4H (high range, 4-wheel drive)

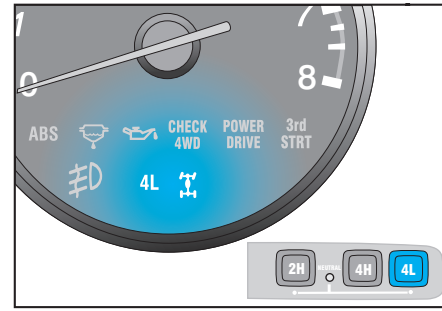
Use this for normal driving on wet, icy or snow covered roads.

This position provides greater traction than 2WD.



4L (low range, 4-wheel drive)

Use this for maximum power and traction. Use this for climbing or descending steep hills, off-road driving, and hard pulling in sand, mud or deep snow.

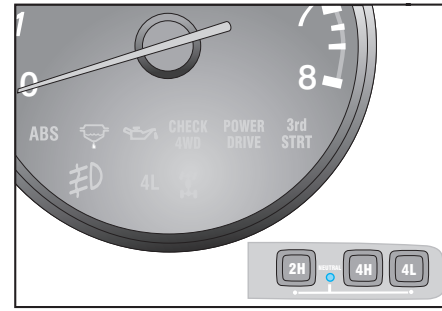


Neutral

Neutral disengages the axle from the power train. Only use this if being towed by other vehicle.

WARNING:

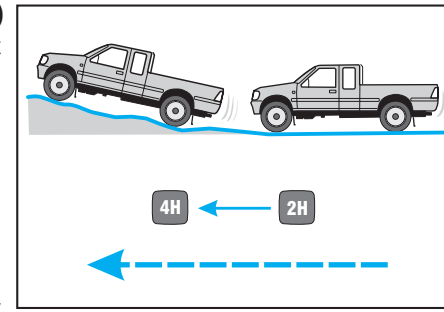
Do not leave the vehicle in N (neutral) except in the case of towing with all four wheels on the ground. The neutral position disengages both the front and rear axles from the transmission, and the vehicle may roll even if in P (park). Always remember to have the parking brake engaged when the vehicle is parked.

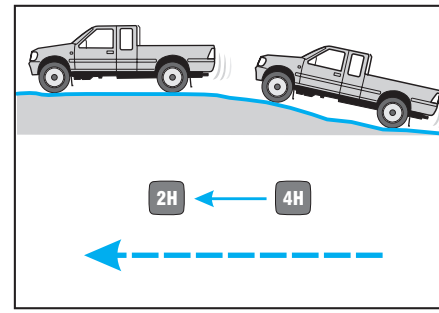


FOUR WHEEL DRIVE SYSTEM OPERATION cont.

Shifting from 2H ⇔ 4H (4WD High)

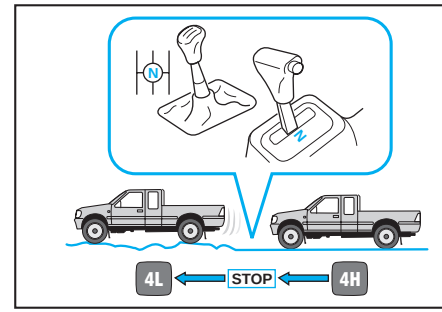
1. Keep the vehicle moving at a constant speed below 100 km/h. Keep the steering wheel straight and ahead.
2. Select the 4H or 2H position on the transfer shift switch panel.
3. The 4WD indicator light on the tachometer face will blink until the system has completed its operation.
4. If the shift operation is not completed, stop the vehicle, then rock it slowly forward and backward.
5. Ensure 4WD indicator light turns on (if going from 2H to 4H) or off (if going from 4H to 2H) and 4L indicator light on the tachometer face finishes blinking.

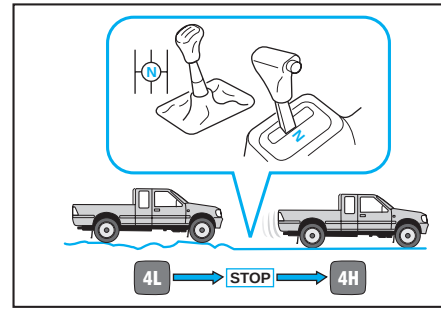




Shifting from 4H (4WD High) ⇔ 4L (4WD Low)

1. Stop the vehicle.
2. Shift the transmission shift lever to the N (neutral) position.
3. Select the 4H or 4L position on the transfer shift switch panel.
4. The 4L indicator light on the tachometer face will blink until the system completes operation.
5. Shift the transmission shift lever to the appropriate gear that will suit the condition of the road that you are faced with.
6. If the shift operation does not complete, stop the vehicle and rock it slowly forward and backward.
7. Ensure the 4WD indicator light turns on and 4L indicator light finishes blinking.

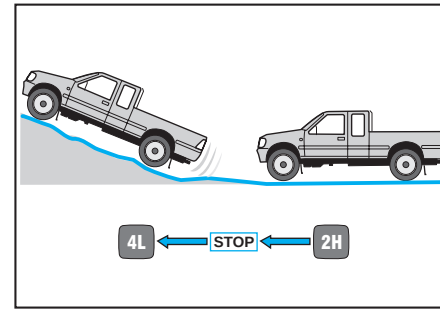


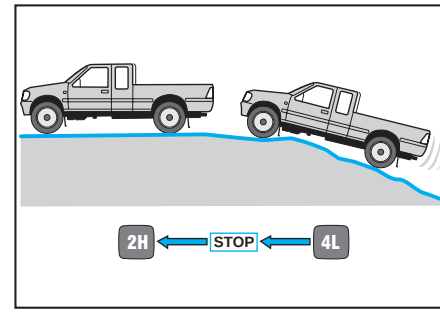


FOUR WHEEL DRIVE SYSTEM OPERATION cont.

Shifting from 2H ⇔ 4L (4WD Low)

1. Stop the vehicle.
2. Select the 2H or 4L position on the transfer shift switch panel.
3. The 4WD indicator light on the tachometer face will blink until the system completes operation.
4. Shift the transmission shift lever to the appropriate gear that will suit the condition of the road that you are faced with.
5. If the shift operation is not completed, stop the vehicle and rock it slowly forward and backward.
6. Ensure the 4WD indicator light illuminates (if changing from 2H to 4L) or turns off (if changing from 4L to 2H) and 4L indicator light extinguishes.

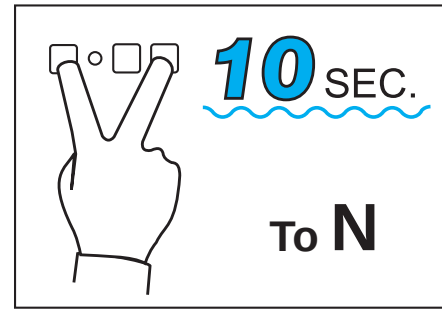




Shifting to neutral

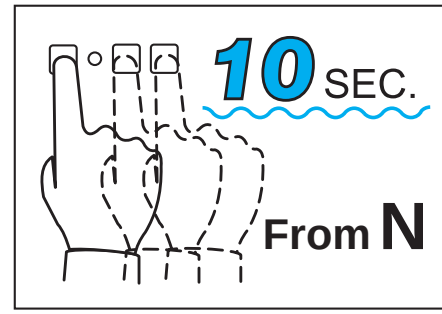
Shifting to neutral is restricted by the mode of vehicle, such as when changing from 4H to 4L.

1. Stop the vehicle.
2. Shift the transmission shift lever to N (neutral).
3. Press the 2H and 4L button located on the transfer shift switch panel together for more than 10 seconds.
4. The neutral indicator light on the transfer shift switch panel will blink until the system completes its operation.
5. Check that the vehicle does not move, even if the start-up procedure is being carried out.



FOUR WHEEL DRIVE SYSTEM OPERATION cont.

Shifting from Neutral



1. Stop the vehicle.
2. Shift the transmission shift lever to N (neutral).
3. Press any button on the transfer shift switch panel for more than 10 seconds.
4. The position indicator light on the tachometer face will blink until the system has completed its operation.
5. If the shift operation is not completed, stop the vehicle and rock it slowly forward and backward.

Note: You cannot operate the transfer shift switch to 4L or from 4L while the indicator light is flashing fast (four times in a second). In this case, perform the following procedure before changing the transfer shift switch to 4L or from 4L:

1. Stop the vehicle.
2. Allow the engine r.p.m. to fall below 2000 r.p.m.
3. Shift the transmission shift lever to N.

You may have to wait up to three minutes in either of the following cases:

- If you have not been driving the vehicle, but you have left the engine running for a long time with the transmission shift lever in L, 2, 3, D or R.
- If you have left the vehicle in gear for a long time, with the clutch released.

In either of these cases, you can immediately change the transfer shift switch to or from 4L after performing as follows:

- Drive the vehicle.
- Turn the ignition switch off then back on.

Notes:

- In cold weather or high speed conditions, the 4H indicator light (on the tachometer face) may change from slow flashing (2Hz) to fast flashing (4Hz), after selecting and pushing the 4H switch on the transfer shift switch panel, from the 2WD condition.
- The 4WD indicator light (on the tachometer face) may remain on if the engine was last shut down while 4WD was still engaged. If this happens, gently rock the vehicle backwards and forwards.
- If the 4WD indicator light continues to slowly flash, after pushing the 4H switch (changing from 2H to 4H), or after pushing the 2H switch (changing from 4H to 2H), drive straight ahead while accelerating or decelerating (depending on which mode you have selected). If the vehicle has stopped it will only require a two to three meter forward movement.

WARNING:

In the event that all position indicator lights fail to either go on or off, or the multifunctional display indicates Check 4WD, see your Holden Dealer and have the vehicle inspected.

ANTI-LOCK BRAKE SYSTEM (ABS) (if fitted)

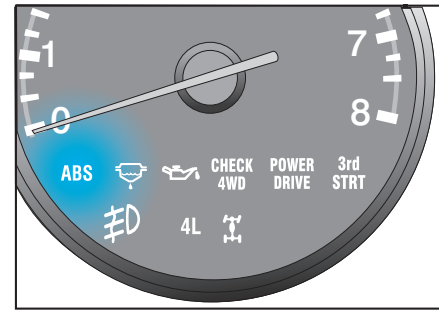
Anti-lock Brake System (ABS) continuously monitors the vehicle's brake system and prevents the wheels from locking, irrespective of the road conditions and tyre grip. It starts to regulate the braking effect as soon as a wheel shows a tendency to lock. The vehicle remains steerable, even in the event of panic braking, for instance on bends or when swerving to avoid an obstacle.

Do not let this special safety feature tempt you into taking risks when driving. Traffic safety can only be achieved by adopting a responsible driving style.

In an emergency braking situation the driver should keep full force on the brake pedal, without pumping the brake pedal. Pumping the brake pedal when ABS is fitted will reduce the braking efficiency.

The ABS warning light is illuminated for a few seconds when the ignition switch is turned on. If it does not go out, or if it comes on during driving, there is a defect in the ABS. The vehicle's brake system remains operational but without ABS assistance. You should consult your Holden Dealer as soon as possible.

The braking effect is regulated by the ABS every millisecond during braking.



When your vehicle is in a critical braking condition ABS will make itself noticeable through pulsing of the brake pedal and the noise of the regulation process, thereby reminding you to match your speed to the road conditions, even though it is keeping control of the braking.

Shortly after driving off, the system performs a self-check. The self-check may be audible.

Brake pad

Where possible, avoid braking hard. Smooth operation of the brake pedal will increase the life of the brakes and reduce the wear on the braking system. When the vehicle is descending a steep slope, it is advisable to use the foot brake in combination with the engine braking effect.

Disc brake wear indicators: The front disc brakes have built-in wear indicators which make a high pitched squealing or cricket-like warning sound when the brake lining is worn to where new linings are needed. This sound can come and go, or be heard all the time when the wheels are rolling, but may stop when the brake pedal is pushed down firmly. Extensive damage can result if the linings are not replaced when needed.

CHAPTER 5

Fuel

Page

5-2 Fuel

5-4 Petrol and diesel filling

5-5 Petrol – emission control

5-6 Reducing fuel consumption

FUEL

EXHAUST WARNING - CARBON MONOXIDE POISONING

- Exhaust gases can produce carbon monoxide, a dangerous gas, which can cause unconsciousness and even death to both humans and animals.
- You could inhale the gases if the exhaust system on your vehicle is faulty.
- To protect against exhaust gases entering the vehicle, the exhaust system and body should be inspected:
  - each time the vehicle is serviced
  - whenever a change is noticed in the sound of the exhaust system
  - whenever the exhaust system, underbody or rear of the vehicle is damaged.
- Take the vehicle to your Holden Dealer if you think your vehicle needs inspecting for any of the above reasons.
- Do not sit (or leave children or pets) in a parked vehicle for any extended period of time with the engine running. Do not run the engine in an enclosed area (such as a garage) any longer than needed to move the vehicle.

LPG WARNING:

The petrol only vehicle engine has not been designed for conversion to LPG.

The performance and safety of the vehicle could be seriously jeopardised if converted to LPG.

PETROL WARNING:

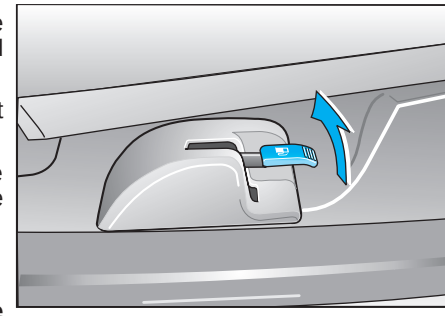
- Petrol is extremely flammable and highly explosive.
- Always turn off the engine and any mobile phones when refuelling.
- Do not smoke or allow open flames or sparks near the vehicle when refuelling.
- If petrol fumes are smelt while driving, the cause should be found and corrected without delay by a Holden Dealer.

FUEL cont.

ETHANOL WARNING

- When purchasing such fuel, we recommend that your vehicle be operated on fuel containing no more than 10% ethanol. Purchasing your fuel from a reputable fuel retailer may reduce the risk of purchasing fuel with more than 10% ethanol or fuel which contains abnormal fuel properties.
- Under no circumstances should you use fuel containing more than 10% ethanol. Use of such fuels may result in engine malfunction, starting and operating difficulties, and materials degradation. These adverse effects could result in permanent damage to your vehicle and personal injury.
- It is also important to note that when ethanol blends are used, fuel consumption can be expected to increase due to the lower energy content of ethanol.

PETROL AND DIESEL FILLING



To release the fuel filler door, pull up on the release lever. The release lever is located on the right-hand side of the driver's seat.

Remove the fuel cap by turning it anticlockwise.

After refuelling, turn the fuel cap clockwise until a clicking sound is heard, then push the fuel filler door shut.

Petrol engines

Use UNLEADED PETROL of 91 octane rating or higher.

High octane unleaded petrol (premium etc.) may be used, but is not required for your vehicle. The use of any other fuel will seriously damage the engine of your vehicle and may void your warranty. Only clean petrol of good quality should be used.

Petrol tanks should always be filled at the intermediate or fast fill rate. Do not add any more petrol after the petrol filler first clicks off or petrol blows back - as this allows room for the petrol to expand inside the tank.

It is only permissible to 'trickle fill' petrol tanks when the vehicle is to be driven for more than 50 km immediately after the tank is filled. However, this is not recommended on days over 30°C.

Wipe off any overflowing petrol immediately from the vehicle and refit the fuel cap; spray or splash with water.

Petrol filler nozzle restrictor

To help protect the atmosphere, your vehicle has been designed to operate on unleaded petrol. A petrol nozzle restrictor is fitted to ensure that only unleaded petrol is used. This allows the smaller diameter unleaded petrol nozzle to open the hinged flap inside the filler neck, so that petrol can be added to the tank. The leaded petrol nozzle is wider and therefore cannot open the flap.

WARNING:

The use of fuel, other than the fuel specified, may cause serious damage to your vehicle and may void your warranty. Only clean fuel of good quality should be used.

Diesel engines

Use a good quality DIESEL fuel of at least 47 cetane rating. If an alternative fuel is to be used, it is the owner's responsibility to determine the suitability of the alternative fuel for this vehicle and engine configuration.

Note: If the diesel engine runs out of fuel, the fuel system must be 'bled' after the tank is filled. Refer to Chapter 6.

Note: For 4JH1-TC engines, do not use additives to the fuel for water draining etc.

PETROL – EMISSION CONTROL

Your vehicle is fitted with emission control systems which are designed to reduce the amount of hydrocarbons (HC), carbon monoxide (CO), and oxides of nitrogen (NOx) that are emitted from the engine and fuel system into the atmosphere. HC and NOx, when exposed to sunlight under certain conditions can contribute to smog. In addition, carbon monoxide is toxic when it becomes highly concentrated in the air.

The three major emission control systems fitted to your vehicle are:

- **Evaporative Emission Control System**

  This system is designed to prevent the escape of fuel vapour from the fuel system and recycle it through the normal combustion process.

- **Crankcase Emission Control System**

  This system is designed to prevent blow-by gases from escaping into the atmosphere and recycle them through the combustion process.

- **Exhaust Emission Control System**

  The various components of this system operate collectively to limit HC, CO and NOx emissions in the exhaust gas. The exhaust emission control system is comprised of components including electronic control of spark, fuel and idle speed. In addition, Australian vehicles have a catalytic converter and closed loop mixture control system.

For detailed information on the operation, servicing and repair procedures for these systems, refer to your vehicle's service manual and / or the emission label inside the engine compartment (on the passenger side strut tower) of your vehicle.

Owner responsibility

Vehicles sold and serviced within Australia have been designed to comply with Australian Design Rules and State Regulation emission requirements.

The engine, engine control system or exhaust system of the vehicle must not be modified in any way. Any change to the design may increase the emissions or otherwise defeat the intent of the regulations.

WARNING:

Any person who removes, modifies or hinders any part of the emission control system may be contravening Australian Design Rules, refer to A.D.R. 28/01 (External Noise for Motor Vehicles), A.D.R. 37/01 (Emission Control for Light Vehicles) and A.D.R. 79/00 (Emission Control for Light Vehicles). It is also illegal to drive a vehicle modified in this way.

First drive

When the vehicle is driven for the first time, wax and oil on the exhaust system may evaporate, producing smoke-like emissions that should not be inhaled. Allow wax and oil to evaporate while the vehicle is in the open air.

Maintenance requirements

To ensure continuing compliance with the regulations, you must maintain your vehicle's emission control system as per your vehicle's service manual, at the frequency shown in the maintenance schedule in Chapter 12.

It is recommended that the necessary servicing be performed by an authorised Holden Dealer who has the specialised servicing equipment and trained personnel available to ensure that the adjustments and services specified are carried out.

REDUCING FUEL CONSUMPTION

Engine

Maintain the engine in peak mechanical condition by having it serviced regularly in accordance with the Maintenance Schedule in Chapter 12. This ensures items such as the spark plugs and the air cleaner are maintained for minimum fuel usage and peak engine performance.

Tyre pressure

Keep the tyres at the recommended pressures. Under-inflated tyres create extra rolling resistance which contributes to increased fuel consumption. Refer to 'Tyres' in Chapter 7.

Incorrect tyre pressures can also cause uneven and premature tyre wear.

Wheel alignment

Maintain correct front wheel alignment. Incorrect alignment makes the front wheels drag, which increases fuel consumption and causes uneven and premature tyre wear.

Warm ups and idling

Avoid long engine warm ups. They are unnecessary and waste fuel. An engine takes approximately 5 minutes to reach its efficient operating temperature and it does this most effectively when driving.

Avoid long engine idling. If you have to wait for more than a couple of minutes turn off the engine to conserve fuel.

Accelerating, driving and braking

Accelerate gently and avoid rapid accelerating from lights or stop signs. Sudden bursts of speed, full throttle acceleration and hard braking waste fuel.

Drive the vehicle at steady speeds where possible (after running-in). It is desirable to reach top gear as soon as possible, but under no circumstances should you force the engine to labour in top gear.

Riding the brake

Do not rest your foot on the brake pedal when you do not intend to brake, as this can overheat the brakes, increase brake pad wear, damage the brakes and waste fuel.

Air conditioning

Turn off the air conditioner when not required. However, once every 2 weeks, with the engine running, switch the air conditioner on for 5 to 10 minutes, even in winter, to lubricate seals.

Loading

Unnecessary weight increases fuel consumption, especially when accelerating.

Notes

CHAPTER 6

Emergencies

Page

6-2 Accidents
- Being involved
- Being a witness
- Medical assistance

6-4 Flat tyre

6-8 Towing your disabled vehicle

6-9 Engine overheating

6-11 Flat battery

6-13 Airbags

6-16 Fuses

6-20 Bulb replacement

6-23 Draining water separator (diesel only)

6-24 Bleeding fuel system (diesel only)

Your new vehicle is covered for 3 years by 24 hour Roadside Assistance, refer to Chapter 9.

ACCIDENTS

All motorists are advised to learn what to do at the scene of an accident, particularly where persons are injured. Injured people can choke to death if their air passages are not cleared. They can bleed to death unless the bleeding is stopped. They may require mouth-to-mouth resuscitation or may have to be moved, even though badly injured. It is important that you understand how to avoid further damaging an injured neck or back or other broken limbs. In all cases, ensure safety for the rescuers, victims and bystanders. The following notes may help.

Part 1. Accident – being involved

If you are involved in an accident you are advised to do as follows:

- Stop immediately and remember to turn off the engine and apply the park brake.
- Remember that time is vital. Remain calm and alert. Think quickly and clearly.
- Give all possible assistance to all injured persons (see Part 3. Medical assistance).
- Send for police and ambulance if anyone has been injured. Give information as accurately as possible. Give the exact location, the number of injured people and a brief report on the overall situation.
- Warn all other traffic approaching the scene. Turn off all ignition switches. Stop any smoking and mobile phone use near spilt petrol. In darkness, try and light up the area to warn others – use hazard lights, a torch, headlights etc. Do not use flammable items.
- Clear the road of accident debris.
- Exchange your name, address, vehicle registration number and the vehicle owner's name and address with the other parties involved in the accident.
- If damage to property only has occurred, report the facts to the owner of the damaged property, to his or her representative, to any police present at the scene or to the nearest Police Station.
- Try to note all important facts because such details may be important if needed later.

Part 2. Accident– being a witness

If you witness a road accident or it becomes your task to stop and help at the scene of an accident:

- Keep in mind that an observant witness can prove most helpful. Some day you yourself might be very glad of help from a witness.
- Do not stop at the scene of an accident just to be a spectator.
- Where other people are already in attendance and giving assistance, you should stop only if you can contribute assistance.
- Give what assistance you can to any injured persons (see Part 3. Medical assistance).

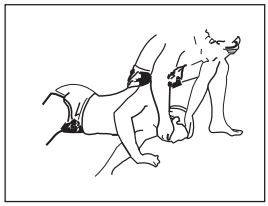
ACCIDENTS cont.

Part 3. Medical assistance

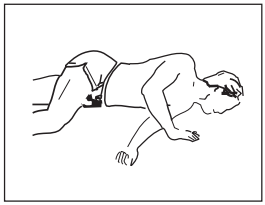
This information is basic first aid information which is intended as a guide only and may not be applicable in all situations. You should always defer to a trained medical officer or other person with first aid knowledge. Protective equipment, such as rubber gloves are recommended.

Keep calm and think clearly. Your experience may not be much but do your best.

- Look after the unconscious person first. Check airway, breathing and circulation. If no breathing, then check if air passages are clear, i.e. nose and mouth. Use your fingers to clear air passages if necessary. If the airway is clear then mouth-to-mouth resuscitation may be needed at once.
- You must be very careful when moving an injured person. It is best not to move at all, except if in danger, as serious and permanent damage can be done to an injured neck or back if not supported during movement. Avoid bending or twisting a neck or back. Keep them straight. All injured limbs require support when an injured person has to be moved.
- Unconscious people can choke. To help avoid this:
  - Carefully turn the person to one side.
  - Tilt the head back slightly.
  - Wipe out the mouth with your finger to remove blood, vomit, broken teeth or dentures.



- Provided it is not dangerous to do so due to injuries, an unconscious person will do best in the following position:
  - Lay the person on one side.
  - Bend the uppermost knee until the thigh is at a right angle to the body.
  - Bend the uppermost shoulder and elbow so that the hand lies near the face.
  - Gently pull the underneath arm so that it rests straight on the ground free of any body weight.



- Try to stop bleeding by applying direct pressure, using your hand, or by pressing torn flesh together. Use any clean cloth available. Fold cloths to make pads. If necessary press one pad on top of another. Keep pressure around edges of a wound but never use a tourniquet.
- Shock may be treated by reassurance, relieving pain, controlling any bleeding and keeping the injured person warm but not hot. It is best not to give any fluids and never alcohol.
- If the injured person is in danger and has to be moved, try and have three or four people help and concentrate on not bending or twisting the neck, spine and injured limbs. Keeping the neck and spine straight is most important.

FLAT TYRE

If using a jack other than the one supplied with the vehicle, refer to Chapter 7 for lifting positions.

WARNING:

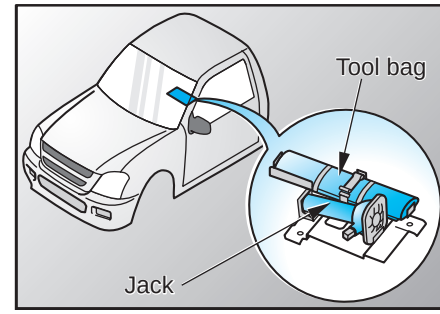
- Use the jack only for lifting the vehicle when changing wheels.
- Never get beneath the vehicle when it is only supported by the jack.
- Do not start or run the engine while the vehicle is only supported by the jack.
- All passengers should be out of the vehicle when it is being jacked.
- Use the jack only at the designated lifting points. Use in other locations can damage the vehicle.
- The vehicle should only be jacked on hard, level surfaces.

1. Park on level surface, ensure the wheels are pointing straight ahead and set the parking brake firmly.
2. Remove the ignition key (to lock the steering) and place manual transmissions in reverse gear or automatic transmissions in park.
3. Remove the jack and tools.

Single cab models:

The jack and tool bag are positioned behind the right seat. To access, tilt the back of the seat forward. Refer to Chapter 3 for seat tilt lever location.

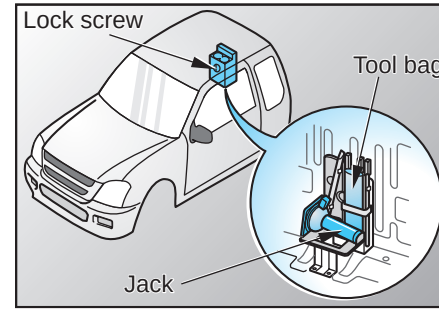
To remove the jack, turn the pressure release knob anticlockwise so that the ram is lowered away from the holder. Remove the jack when the ram is fully lowered.



Space cab models:

The jack and tool bag are positioned behind the front seats. To access, tilt the back of the seat forward. Refer to Chapter 3 for seat tilt lever location.

To remove the jack, turn the pressure release knob anticlockwise so that the ram is lowered away from the holder. Remove the jack when the ram is fully lowered.



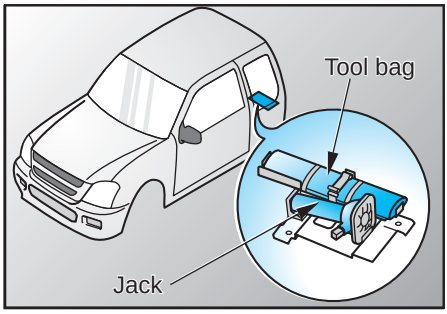
FLAT TYRE cont.

Crew cab:

The jack and tool bag are positioned under the left rear seat.

To remove the jack, turn the pressure release knob anticlockwise so that the ram is lowered away from the holder. Remove the jack when the ram is fully lowered.

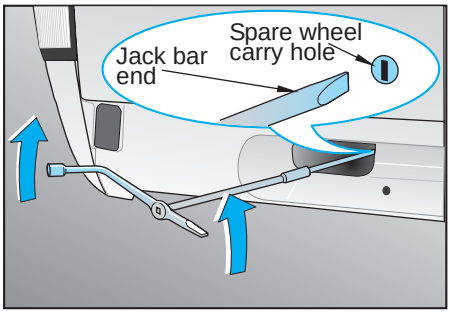
Note: Sport model vehicles require an adapter (located in the tool bag) to be used with the wheel wrench.



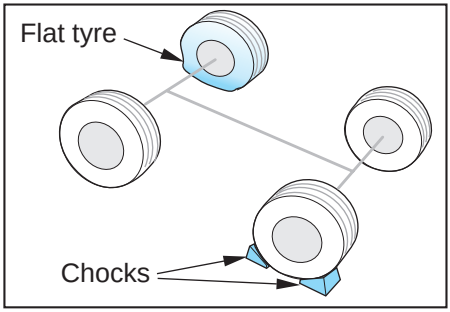
4. Remove the spare wheel, which is secured under the rear of the chassis frame by a chain.

   To lower the spare wheel, insert the jack handle into the hole at the rear of the vehicle below the tail gate. Slide the jack handle all the way in to engage the catch, then turn the handle anticlockwise.

   To raise the spare wheel, turn the jack handle clockwise to the wheel 'stop' then give an additional turn to securely hold the spare wheel in position.



5. Chock the wheel diagonally opposite to the flat tyre by placing wedge blocks, or any other available blocks of wood or rocks behind and in front of the wheel.

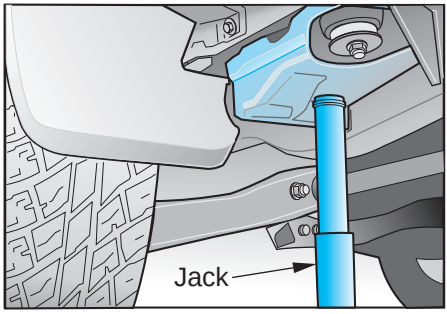


6. Loosen (but do not remove) the wheel nuts by turning the wheel wrench anticlockwise.

7. Place the jack under the recommended jacking point.

   Front jacking point:

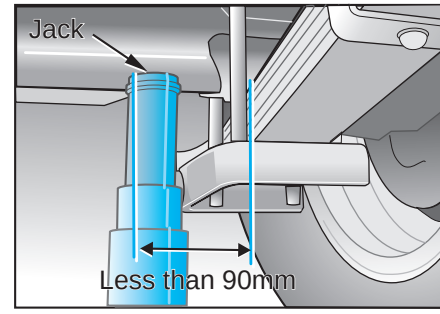
   Set the jack to the lower surface on the 2nd mounting bracket.



FLAT TYRE cont.

Rear jacking point:

Set the jack within 90 mm from the leaf spring under the axle tube. Align the recess on the jack head to the curved surface of the axle tube.



WARNING:

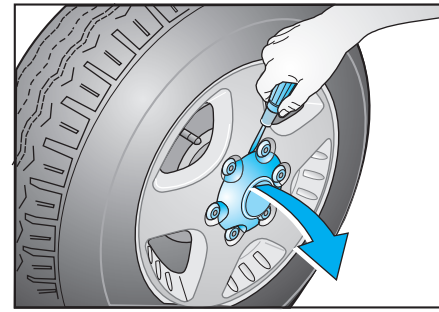
Failure to position the jack as described could result in serious personal injury or vehicle damage caused by the vehicle slipping off the jack.

Ensure that the jack is not tilted and that the base is resting squarely on the ground.

WARNING:

The jack is a 2-stage ram jack. Stop extending the jack when both rams are raised to the point where the stop mark on the rams becomes visible. Further extension could damage the jack, making it unstable.

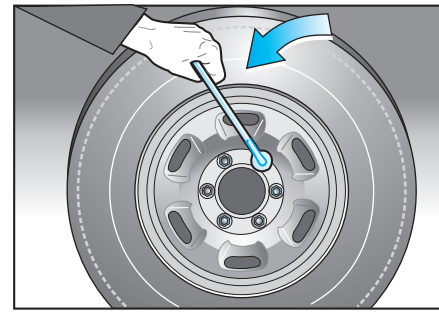
8. Raise the vehicle by turning the crank handle, until the tyre is clear of the ground. If there is a wheel cap fitted, remove it by using the flat end of the jack handle. Pry along the edge of the wheel cap until it comes off.



WARNING:

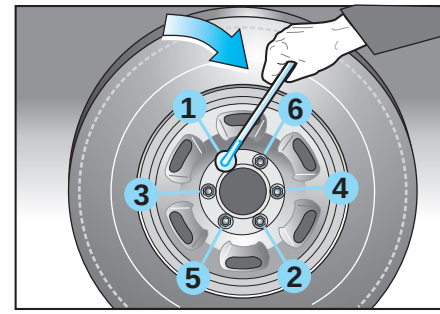
The rim along the edges may be sharp. Do not try to remove it with your bare hands. (Aluminium wheel only)

9. Remove the wheel nuts and place together in a dry spot, to avoid getting dirt on the threads.
10. Remove the wheel from the vehicle and change it over with the spare.
11. Replace the wheels nuts and tighten by hand. Then, with the wheel wrench, lightly tighten in the sequence shown.
12. Lower the vehicle completely and remove the jack. Replace the wheel cap. (Aluminium wheel only)



FLAT TYRE cont.

13. Fully tighten the wheel nuts with the wheel wrench in the sequence shown above. Replace the wheel cover. (Aluminium wheel only)



14. Stow the jack, jack handle, wheel wrench and flat tyre in the rear of the vehicle, as shown previously in this chapter.

    To install the jack, place it into position under the holder and turn the knob in a clockwise direction until the ram pushes against the top of the holder, locking it into place.

15. Have the tyre repaired as soon as possible.

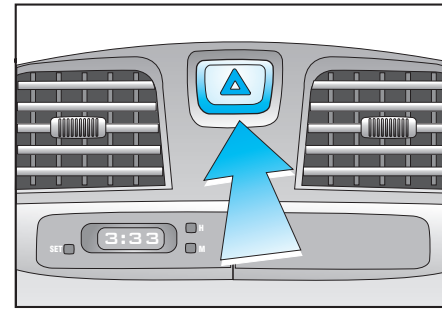
WARNING:

- As soon as possible after changing a wheel, you should have the wheel nuts tightened with a torque wrench to 120 Nm (Newton metres) and have the new wheel balanced on the vehicle.
- Wheel nuts should be tightened evenly to the correct torque in the sequence shown, as wheel nuts which have not been properly tightened wheel nuts could eventually allow the wheel to come off while the vehicle is moving!

TOWING YOUR DISABLED VEHICLE

Hazard warning flasher

Use the hazard warning flasher to warn other drivers any time your vehicle becomes a traffic hazard, day or night. Avoid stopping on the roadway if possible.



Turn the hazard warning flasher on or off by pressing the hazard warning switch, which is located in the middle of the dash. Both indicator symbols on the instrument panel will flash simultaneously, and all four external signal lights will flash continuously.

The hazard warning flasher will work with the ignition switch in any position.

Towing your disabled vehicle

Proper lifting or towing equipment is necessary when lifting or towing the vehicle to prevent damage during any towing operation. State and local laws must be followed. In an emergency, your vehicle may be towed on all four wheels in the following manner:

- Fit the towing equipment to the towing eye, which is located on the underside of the left hand front subframe below the bumper. Do not attach any towing equipment to the bumpers or brackets.
- Place the transmission in N (neutral) position and release the park brake.
- Place the transfer lever in neutral position. Refer to Chapter 4, Shifting to Neutral.
- Switch the ignition key to the on position. This will free the steering lock and allow the correct operation of windscreen wipers and turn signals.
- For the sake of safety and to prevent damage to the vehicle it is advisable to avoid jerky movements and to drive slowly during towing operations.
- Remember that power assist for brakes and power steering (where fitted) will not be available when the engine is off.
- To prevent the entry of exhaust fumes from the towing vehicle into the passenger compartment of your vehicle, close the windows and stop the entry of air by moving the heating and ventilation controls to the off position.
- Vehicles fitted with automatic transmissions must not be towed for more than 55 kms or at over 30 km/h unless the propeller shaft is removed.
- Vehicles with damaged transmissions must not be towed unless the propeller shaft is removed.
- Only the driver should be in the towed vehicle.

ENGINE OVERHEATING

WARNING:

Immediate action is required if the engine overheats. This can be indicated by the temperature gauge needle moving to the red zone, by steam escaping from under the bonnet, a loss of power or a loud knocking or pinging noise.

Continued driving even for a short time could result in a fire or vehicle damage.

If the coolant temperature gauge needle should move to the H position and remain there for more than 30 seconds, pull over to the side of the road. Leave the engine idling while you step out of the vehicle to check that the cooling fan is working.

WARNING:

Do not open the bonnet if you can see or hear steam or coolant escaping from the engine compartment. Wait until no steam or coolant can be seen or heard before opening the bonnet.

If the fan is working and the temperature gauge needle has not returned to its normal position within a few minutes, stop the engine and remove the ignition key.

Look for leaks at the radiator hoses and connections, heater hoses and connections, radiator and water pump and fan belt. Take care when checking all of these areas as they may still be hot.

If you find a major leak or other problems that may have caused the engine to overheat, do not run the engine until these problems have been corrected.

If you do not find anything wrong then you should check the engine coolant level in the surge tank, refer to Chapter 7 for the location.

WARNING:

Do not remove the cooling system cap if the engine and radiator are still hot. Scalding fluid and steam can be blown out under pressure which could cause serious burns.

ENGINE OVERHEATING cont.

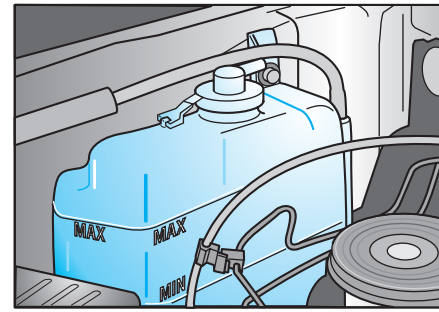
WARNING:

The cooling system is pressurised, so to avoid injury please read all of the following instructions before attempting to add coolant.

Without undoing the coolant tank cap, look at the level of the coolant in the see-through coolant tank.

When the engine is hot the level should be above the MIN mark.

If the level is at or below the MIN mark when the engine is hot, coolant will need to be added as follows:



- Allow the engine to cool a little.
- The bottle is pressurised, so cover the cap with a thick cloth. Remove the cap very slowly to allow any pressure to escape.
- If water is added it should be clean.
- Top up the coolant tank to the MAX mark **while the engine is idling.**
- Replace the coolant tank cap.

If after taking one or more of the above actions the temperature gauge no longer indicates an overheat condition you can resume driving at a reduced speed. Return to normal driving after 10 minutes if the temperature gauge does not again show an overheat condition. If overheating occurs again you should have the vehicle attended to, as soon as possible, by a qualified mechanic.

The engine may temporarily operate at high temperatures during demanding operating conditions, especially on hot days, including:

- Climbing a long hill.
- Stopping immediately after high speed driving.
- Idling for long periods in traffic.
- Towing a heavily laden trailer or caravan.

Note: It may help to turn off the air conditioner in these conditions.

Refer to Chapter 7 for instructions to help protect your cooling system from overheating.

FLAT BATTERY

WARNING:

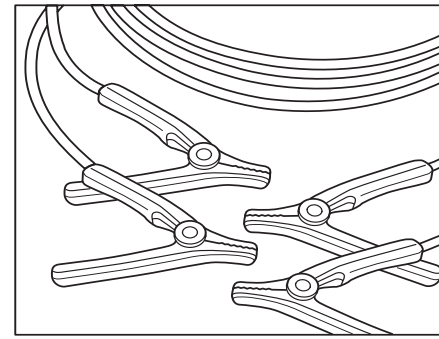
- Do not push start or tow start your vehicle. If unburnt fuel were to reach the catalytic converter and ignite, the converter could overheat or be destroyed by backfire. Therefore, if the battery is flat, you can jump start, but not push start your vehicle.
- To protect your vehicle's electrical system never disconnect the battery when the engine is running. Never start the engine while the battery is disconnected. Never charge the battery while it is still connected to the vehicle, first disconnect the negative cable, then the positive cable. The polarity of the battery, i.e. the connections for the positive and negative cables, must not be interchanged when reconnecting. First connect the positive cable, then the negative cable.

If your vehicle will not start due to a discharged battery, it can often be started by using energy from another battery, a procedure called jump starting.

Please read the following procedure before attempting to jump start your vehicle.

However, if after reading the following procedure you are still unsure about jump starting we strongly recommend for your safety and that of your vehicle that you leave the starting to a competent mechanic.

Jump starting



WARNING:

Batteries produce explosive gases, contain corrosive acids and supply levels of electrical current high enough to cause burns. Therefore, to lessen the chance of personal injury when working near a battery:

- Do not expose the battery to open flames or sparks. Battery action generates hydrogen gas which is flammable and explosive.
- Do not smoke near a battery.
- Wear eye protection such as industrial safety glasses and avoid leaning over the battery whenever possible.
- Do not allow battery acid to contact eyes or skin. Flush any contacted area with water immediately. In case of eye contact you should get medical help. Battery acid also damages paint and fabrics. To minimise damage, wash off immediately.
- Ensure any batteries that have filler caps are properly filled with fluid.
- Remove rings, metal watch bands and other metal jewellery before working around the battery.
- Carefully follow each step in the jump starting procedures.
- Never use a quick charger to start your engine.
- Do not lean over the battery during jump starting.

FLAT BATTERY cont.

1. The battery in your vehicle has a negative earth and a 12 volt rating. The battery in the other vehicle **must** also have a negative earth and a 12 volt rating.

2. Position the two vehicles so that they are not touching, apply the park brakes, if your vehicle is fitted with an automatic transmission place in P (park), or manual into neutral. Turn the ignition to lock and switch off all the lights and accessories in both vehicles, except the hazard warning flasher or any lights needed for the work area.

3. Attach one end of the red jumper lead to the positive terminal of the charged battery (identified by a red colour, + or P) and the other end of the red jumper lead to the positive terminal of the flat battery.

4. Attach one end of the black jumper lead to the negative terminal of the charged battery (identified by a black colour, - or N) and the other end of the black jumper lead to a solid stationary, metallic point on the engine of the vehicle with the flat battery. **Do not connect directly to the negative terminal of the battery, as this can cause sparks.**

5. When making all connections take care that the jumper lead clamps do not touch each other. Also, ensure that the jumper leads are not on or near pulleys, fans or other points that will move when the engine is started.

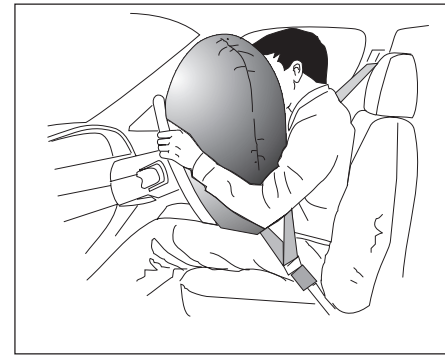
6. Start the engine in the assisting vehicle and run the engine at a moderate speed. Then start the engine with the flat battery. Attempts to start the engine with the flat battery should be made at one minute intervals and should not last longer than 15 seconds.

7. After starting, allow both engines to idle for approximately 3 minutes with the leads still connected.

8. Leave the engine running while removing the jumper leads - in the exact reverse order they were installed. While removing each clamp, take care that it does not touch any other metal while the other end remains attached.

AIRBAGS (if fitted)

Operation



If your vehicle is fitted with an airbag system the word SRS (Supplemental Restraint System) will be shown on the steering wheel. This means that two airbags are fitted, one for the driver and another for the front passenger, which will operate as a pair; they are triggered simultaneously.

If your vehicle is involved in a severe front end collision, the airbags will inflate, assisting the seat belts to restrain forward body movement.

An operating noise may be heard and a small amount of smoke-like gas will be released. The gas is harmless and does not indicate malfunction or fire.

The airbags will then deflate – the whole process only taking a moment.

The airbags assist but do not replace the seat belts. Airbags are not designed to inflate if the vehicle is hit from the rear, side or if the vehicle overturns.

An impact caused by dropping into a large pothole or depression in the road may or may not inflate the airbags. Seat belts (by law) should be worn by all passengers whenever the vehicle is moving.

Airbags inflate with great force. If you are too close to an inflating airbag it could seriously injure you. Seat belts help keep you in position for airbag inflation in a crash.

The airbag light on the instrument panel illuminates for a few seconds when the ignition is switched on. This is to indicate that the airbags are operational. If the light does not blink when the ignition is switched to on, or if it illuminates when driving, this may indicate that there is a fault in the airbag system. Consult your Holden Dealer as soon as possible.

If the airbag system is handled incorrectly it can be set off for up to 15 seconds after the ignition has been turned off and the battery disconnected, and cause injury. Follow proper service procedures and make sure that the person performing the work for you is qualified to do so.

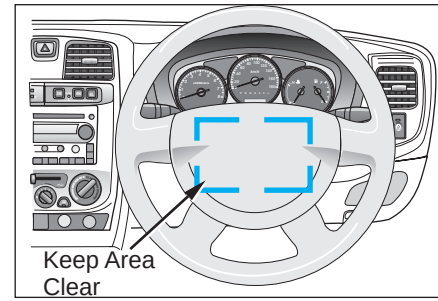
After use the whole airbag system will have to be replaced.

The system should also be inspected if the steering wheel or dashboard area is scratched, cracked or damaged.

AIRBAGS (if fitted) cont.

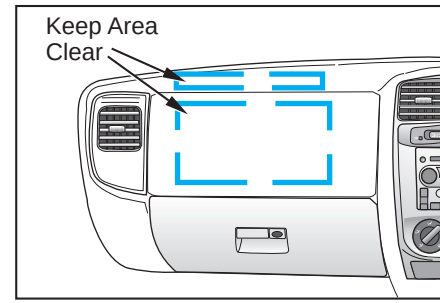
WARNING:

The horn pad must not be covered with adhesive or any other material, as this may hinder airbag operation.



WARNING:

The dash board area must also be kept clear with nothing around this area, hanging from the sun visor or stuck to the dash.



Extensive design and testing has gone into the airbag system. It should however, be treated with respect. Any careless or unskilled interference with the system could lead to its failure or to accidental inflation. It is recommended that any work to the electrical system, steering column, dashboard area, steering wheel or airbag system be carried out by a Holden Dealer.

Bull bar

Fitting a bull bar, or making other modifications to the front of the vehicle, may change the impact speed which would normally cause the airbag to inflate, reducing its effectiveness. Bull bars should not be fitted to vehicles operating in suburban areas, as they increase the risk of injury to a pedestrian in the event of a collision. Bull bars are only recommended for country or outback areas, where additional protection from straying animals is required. Please remember that defensive driving and limiting driving speed to the road conditions is always the best approach, particularly where road side signs indicate wildlife is abundant.

AIRBAGS (if fitted) cont.

Passenger airbag and child restraints

WARNING – EXTREME HAZARD:

- Do not use a rearward facing child restraint on a seat protected by an airbag in front of it. The child could be seriously injured if the airbag inflates, as the child's head would be very close to the inflating airbag.
- Where legally allowable, you may install a forward-facing child restraint in the front seat, but always move the passenger seat as far back as it will go.
- It is always better to install a child restraint in the rear seat.

For information about fitting a child restraint, refer to Chapter 3.

Do not touch any airbag system components or wires.

The wires can be identified by yellow tape wrapping or yellow tubing and the connectors are also yellow.

Scrapping a vehicle that has an uninflated airbag can be hazardous. Ask your Holden Dealer for assistance.

WARNING:

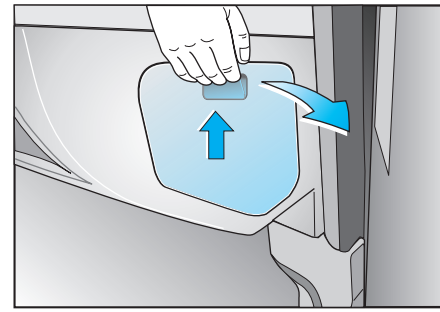
- Child restraint anchorages are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstances are they to be used for adult seat belts, harnesses or for attaching other items or equipment to the vehicle.
- Only child restraints that have clips to attach to the vehicle's anchorage fitting (as shown in the following illustrations) are to be used. Earlier types of child restraints may not attach securely to this type of anchor.
- Only Standards Australia approved child restraints and harnesses should be used. You should only purchase a child restraint which carries the appropriate Standards Australia sticker of approval.
- Where legally allowable, you may install a forward-facing child restraint in the front seat (without SIAB), but always move the passenger's seat as far back as it will go.

FUSES

Fuse boxes

There are two fuse boxes; one is on the right-hand side of the dash panel, visible when the door is open and the other is located on the passenger's side of the engine compartment. Fuses are also located separately in the engine compartment. When replacing a fuse, turn off the respective switch.

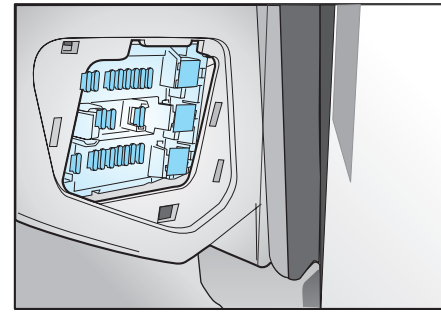
To determine whether or not a fuse is blown, it is necessary to pull out the suspect fuse and examine the wire in the fuse. A fuse puller is provided in the fuse box. A blown fuse can be recognized by its melted wire. If a fuse blows twice in a row a fault is indicated. The cause should be located and fixed by a Holden Dealer.



Dash panel fuses

To open the fuse cover in the dash panel, open the driver's side door, pull the top of the cover out, then pivot downwards.

Always ensure the cover is in place after use. The fuse amperage is shown on the inside of the fuse cover.



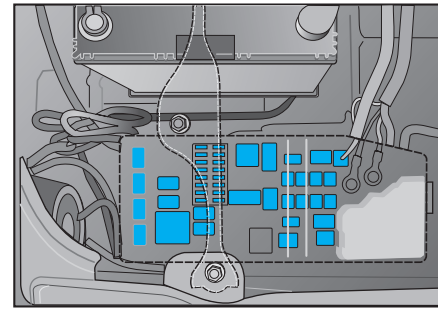
Fuse box in engine compartment

This fuse box is located on the passenger side of the engine compartment, it contains circuit fuses, main fuses and relays.

To remove the cover, press the catch on the side of the fuse box towards the engine and release the two tabs at the opposite side.

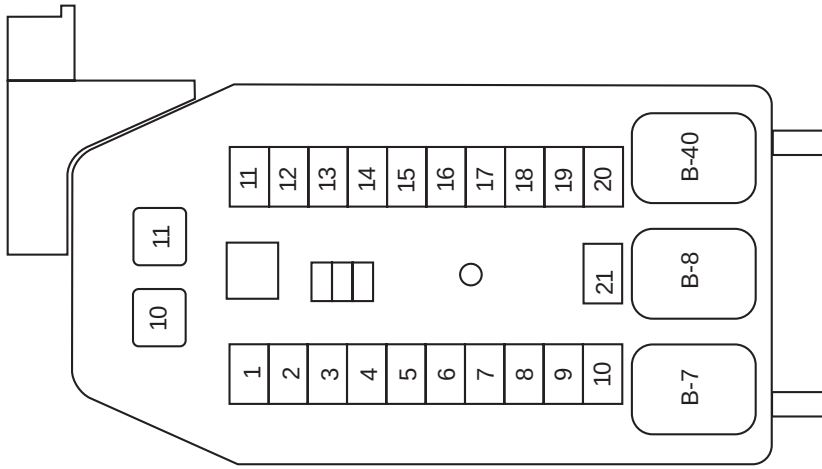
Always ensure the cover is correctly fitted after replacing or inspecting fuses.

The fuses amperage are shown on the inside of the fuse cover.



FUSES cont.

Dash panel

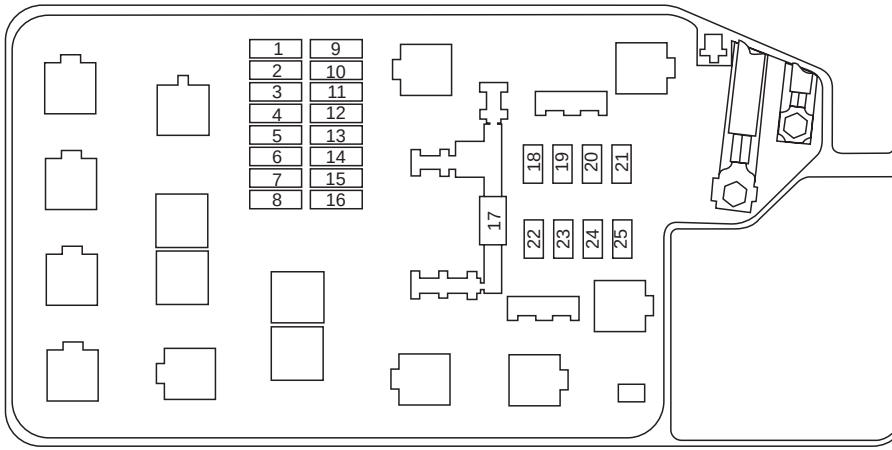


No.	Capacity	Label identification	No.	Capacity	Label identification
1	–	–	12	20 A	Cigar/Acc Socket
2	10 A	ABS	13	15 A	Audio (+B)
3	–	–	14	20 A	Door Lock
4	15 A	Back Up	15	10 A	Meter (+B)
5	15 A	Meter	16	10 A	Dome Light
6	10 A	Turn	17	10 A	Anti Theft
7	15 A	Elec. IG	18	15 A	Stop
8	15 A	Engine	19	–	–
9	20 A	Frt Wiper/Washer	20	10 A	Starter
10	15 A	Egr	21	10 A	SRS
11	10 A	Audio			

Slow blow fuse			Connector / Relay	
10	20 A	RR Def	B-7	Rear defogger
11	30 A	Power Window	B-8	Power window
			–	–

FUSES cont.

Engine compartment

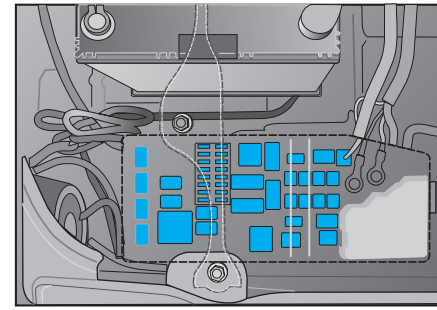


	Engine / capacity				Engine / capacity		
No.	C24SE	HFV6	4JH1-TC	No.	C24SE	HFV6	4JH1-TC
1	15 A: ECM	15 A: ECM	10 A: ECM	14	10 A:4WD		
2	-	15 A: O_2 Heat Pre	10 A: RR Fog	15	10 A:Horn		
3	15 A: Frt Fog	10 A: ECM Batt	15 A: Frt Fog	16	10 A:Hazard		
4	10 A: ACG (S)	10 A: TCM/PIM Batt	-	17	100 A: Main	-	80 A: Main
5	10 A:Illumi & Tail-RH	10 A:Illumi & Tail-RH		18	-	20 A: Frt Fog	20 A: Cond, Fan
6	10 A:Tail	10 A:Tail-LH		19	-	60 A: RAD, Fan	60 A: Glow
7	10 A: H/Light-RH	10 A: H/Light-RH	10 A: H/Light-RH (LO)	20	20 A: Cond, Fan	20 A: Fuel Pump	30 A: ECM
8	10 A:H/Light-LH	10 A: H/Light-LH	10 A: H/Light-LH (LO)	21	40 A: IG 1		
9	20 A: Fuel Pump	20 A: Trailer	10A: Trailer	22	-	40 A: IG 1	
10	10 A: O_2 Sensor	15 A: O_2 Heat Post	10 A: ACG (S)	23	-	40 A: ABS-2	
11	-	15 A: Coil-RH	-	24	30 A: Blower		
12	-	15 A: Coil-LH	-	25	50 A: IG 2		
13	10 A:A/C						

FUSES cont.

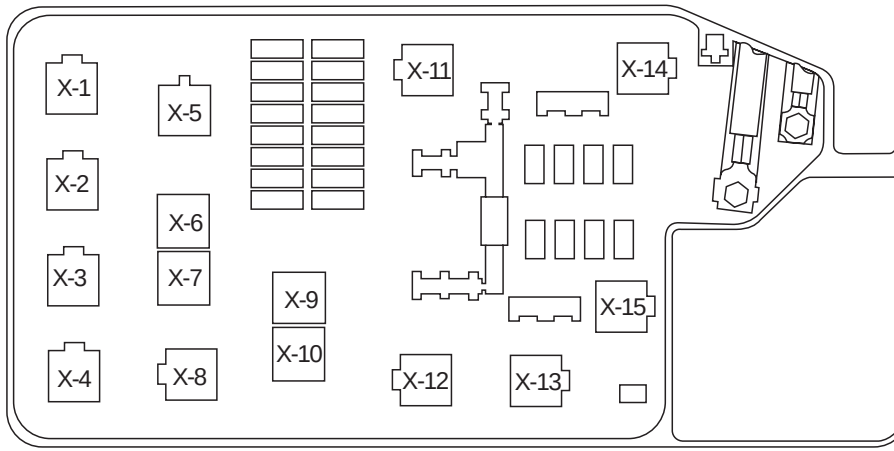
Relays

Relays are also contained in this fuse box; their location in the fuse box and their function is indicated on the inside of the fuse box cover.



WARNING:

When replacing a fuse ensure to use a fuse of the specified amperage. Never install a wire or similar as it could damage electrical components and cause a fire.



	Engine / relay				Engine / relay		
No.	**C24SE**	**HFV6**	**4JH1-TC**	**No.**	**C24SE**	**HFV6**	**4JH1-TC**
X-1	Tail light			X-9	FRT Fog light	–	Cond fan
X-2	Fuel pump		FRT Fog light	X-10	Cond fan	FRT Fog light	–
X-3	Horn			X-11	Heater		
X-4	Dimmer			X-12	–	ECM Main	–
X-5	–	–	Glow	X-13	Starter cut	Starter	ECM Main
X-6	Starter	–	Starter cut	X-14	A/C Comp		
X-7	H/light	–	H/light	X-15	Thermo	H/light	Thermo
X-8	–	–	Starter				

BULB REPLACEMENT

When replacing a bulb, turn off the related switch.

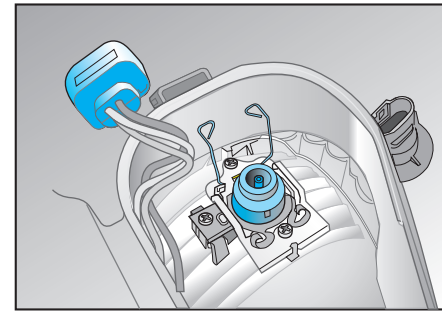
Do not touch new bulbs with bare hands. Greasy fingers will cause stains, which evaporate, and result in a dull light. Grease spots on Halogen bulbs will, within a short time, lead to bulb failures. Inadvertently stained bulbs may be cleaned with tissue paper, or a clean, non-fuzzy cloth, using alcohol or white spirits.

When replacing bulbs do not exceed the wattage given on the defective bulb base.

Detailed procedures for headlight aiming are given in the relevant service manual for your vehicle. However, because headlight aiming is a safety item it is recommended that you have it carried out by your Holden Dealer.

Halogen headlight system

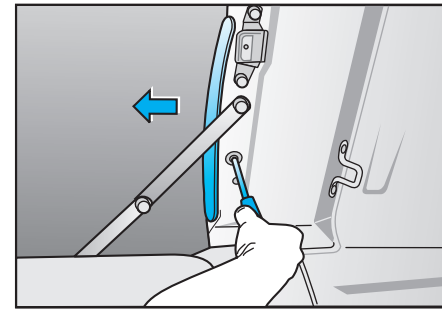
1. Open the bonnet and engage the support.
2. Remove the connector.
3. Remove the rubber boot.
4. Release the bulb retaining clip.
5. Remove the bulb.
6. Insert a new bulb into the bulb holder without touching the glass.
7. Insert the new bulb and bulb holder so that the two lugs on the bulb holder engage in the recesses in the reflector.
8. Install the bulb retaining clip.
9. Check the light operation.



Rear combination lights

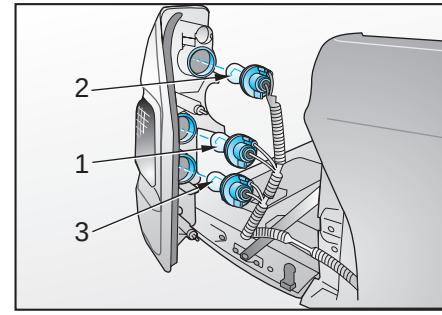
1. Unscrew the screws securing the lens.
2. Remove the bulb from the bulb holder.
3. Insert the new bulb.
4. Install the lens.

   Note: Take care not to crack the lens when tightening the screws.
5. Check light operation.



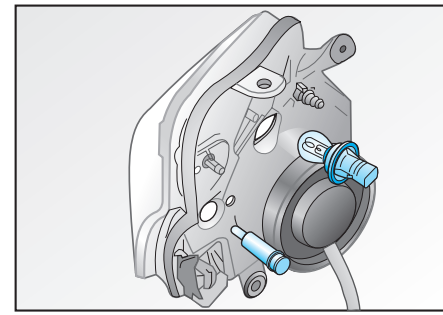
The bulbs have the following capacities:

- Turn signal lights, 21 watts (amber).
- Stop and tail lights, 21/5 watts.
- Reversing lights, 21 watts.



BULB REPLACEMENT cont.

Park lights and front turn signal lights

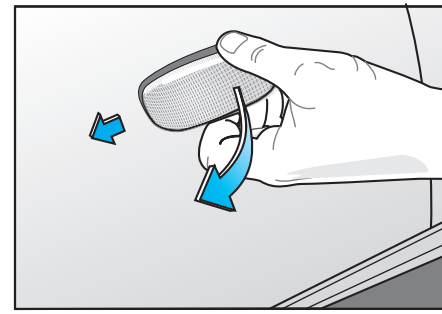


1. Open the engine bonnet and engage the support.
2. Grip the bulb holder nearest to the engine by the plug connector and rotate anticlockwise.
3. Remove the bulb holder from the reflector.
4. Remove the bulb from the bulb holder.
5. Insert a new bulb into the bulb holder, without touching the glass.
6. Install the bulb holder into the reflector and rotate clockwise as far as it will allow.
7. Check light operation.

The bulbs have the following capacities:

- Park lights, 5 watts.
- Front turn signal lights, 21 watts (amber).

Side flasher lights

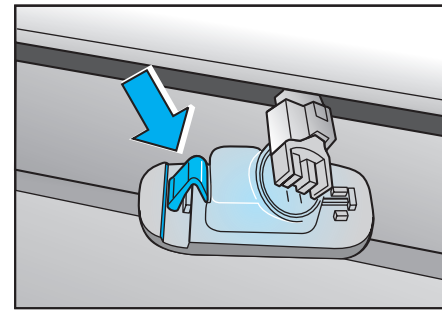


1. Grasp the lens at the rear, push forwards and pull away from the body of the vehicle. Separate the bulb holder from the lens assembly by first rotating the bulb holder anticlockwise.
2. Disconnect the wiring harness connector. The bulb pulls straight out of the bulb holder.
3. Insert the new bulb into the bulb holder. Install the bulb holder into the lens housing.

   Note: The bulb holder only fits into the lens housing one way. Therefore, keep turning the bulb holder clockwise until it fits into place and can be tightened.
4. Connect the wiring harness connector.
5. When inserting the light, first locate the rear of the housing into the body before pushing the front inwards to engage the clip.
6. Check light operation.

BULB REPLACEMENT cont.

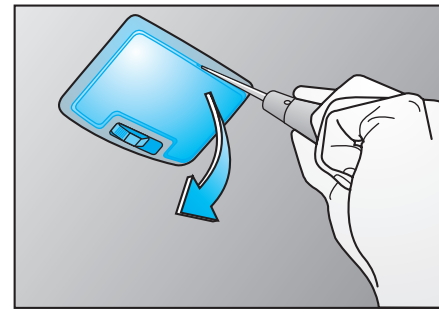
Licence plate lights



1. Remove the light assembly by releasing the catch located on the rear of the light.
2. Remove the lighting unit from the vehicle body.
3. Remove the bulb assembly from the lens by rotating the bulb assembly clockwise.
4. Remove the bulb.
5. Insert the new bulb and reinstall the bulb assembly to the lens by rotating anticlockwise.
6. Press the lens back into the light housing.
7. Check light operation.

The bulb has a capacity of 5 watts.

Interior lights

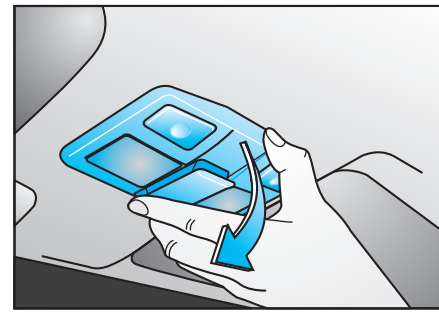


Before removing the lens, close the front doors so that the light is not live.

1. Lever out the lens by carefully inserting a flat blade screwdriver between the lens and the light housing.
2. Press the light bulb sideways towards the spring clips to remove.
3. Insert the new bulb.
4. Press the lens back into the light housing.
5. Check light operation.

The bulb has a capacity of 10 watts.

Map light

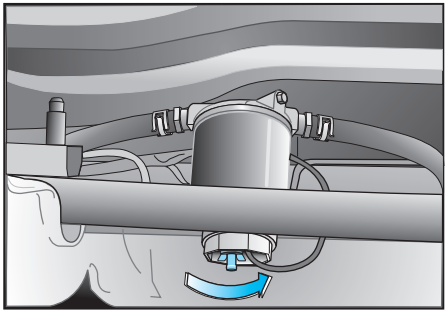


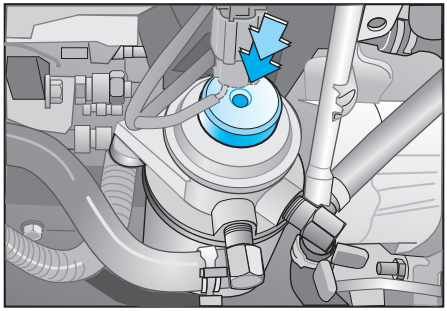
1. Pull the light assembly downwards.
2. Remove the bulb holder by turning it anticlockwise.
3. The bulb pulls straight out of the bulb holder.
4. Insert the new bulb into the bulb holder. Install the bulb holder into the lighting assembly.
5. Install the light assembly.
6. Check light operation.

The bulb has a capacity of 5 watts.

DRAINING WATER SEPARATOR (diesel only)

The water separate has a sedimentary chamber for separating the water from the fuel. If the indicator light illuminates on the instrument panel the water in the sedimentary chamber must be drained as follows:





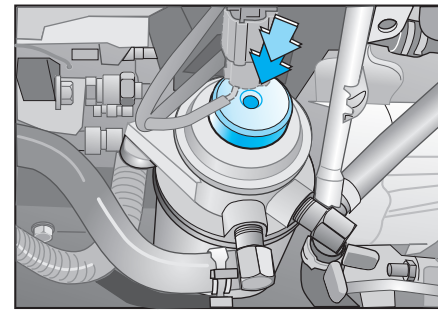
1. Place a small container (approximately 0.2 litre capacity) beneath the drain plug on the separator.
2. Loosen the drain plug (approximately five turns) until 0.1 litres of water has been drained.
3. After draining, securely tighten the drain plug and operate the manual pump up and down several times.
4. After starting the engine, check to see that no fuel leaks from the drain plug. Also check to see that the indicator light has turned off.

   Note: If the water separator requires frequent draining, have the fuel tank drained for removal of water at your Holden Dealer.

BLEEDING FUEL SYSTEM (diesel only)

If the fuel tank has been emptied, the chance is that air might have entered the fuel system. With air in the fuel system, smooth flow of fuel into the engine is interrupted and to correct this, bleeding of the fuel system should be performed (after refuelling) as follows:

1. Operate the hand pump on the fuel filter to bleed air from the fuel system.



2. Start the engine when the fuel bleeding has finished.
3. Allow the engine to idle for 5 minutes.

Note: If the engine does not start within ten seconds, repeat steps 1 and 2.

Notes

CHAPTER 7

Weekly checks

Page

7-2 Miscellaneous checks
7-3 Engine coolant level
7-4 Engine oil level
7-5 Engine oil consumption
7-6 Automatic transmission fluid level
7-7 Brake fluid level
7-7 Clutch fluid level
7-8 Power steering fluid level
7-8 Washer fluid level
7-9 Tyres
7-12 Battery

MISCELLANEOUS CHECKS

As well as taking your vehicle to be serviced (refer to Chapter 12) there are a few simple, weekly checks that the owner (or Nominee) is recommended to make. These are shown on the following pages.

WARNING:

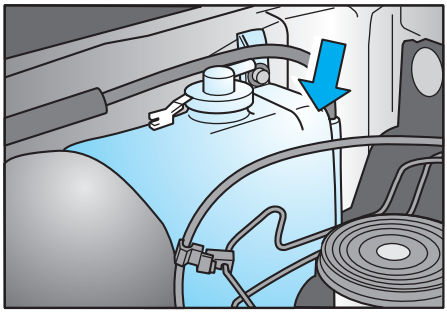
- The engine cooling fan can start working unexpectedly, even when the engine is not running. To avoid injury from the fan, ensure the ignition switch is off, so that the fan cannot start operating.
- Electronic ignition systems have a high ignition power. Do not touch the ignition system; this could be highly dangerous.

The following checks should also be regularly done to ensure safety of your vehicle:

- All exterior lights are working and their appropriate interior indicator illuminates.
- Mirrors and glass are clean and not scratched.
- Aim of water on the windscreen is satisfactory.
- Condition of the wipers is satisfactory.
- Demister operates.
- The horn works.
- Condition and operation of all the seat belts. Check that buckles are clean and operating correctly. Remember that seat belts must never be worn twisted.

ENGINE COOLANT LEVEL

To check the coolant level



The level of the coolant should be checked weekly. This is simply a matter of looking at the level in the plastic container, called the surge tank.

Check the level of the coolant and replenish the radiator reservoir tank as necessary. If the level of the coolant in the reservoir tank is found to be lower than the MIN line, check the cooling system for leaks, then replenish to bring the level up to the MAX line.

WARNING:

- Do not over fill the reservoir tank.
- Remove the radiator filler cap only.
- Always check the coolant level when the engine is cold.

To add coolant

Ensure that the long life coolant in your vehicle conforms to Holden specifications (refer to Chapter 8).

If the surge tank requires topping up, first pre-mix a solution of 50% specified coolant and 50% water.

Ensure the ignition is switched off.

Undo the cap on the top of the surge tank, add the pre-mixed solution and secure the cap.

Failure to use the coolant meeting Holden's specification or maintaining the specified concentration may result in voiding your warranty.

In emergency situations, plain water may be used temporarily until the correct Holden specified coolant is obtained as soon as possible from the nearest Holden Dealer.

The specified coolant works in three ways: it contains special corrosion inhibitors, it helps the cooling system in hot weather by increasing the boiling point and it protects against freezing down to -30°C, provided the correct concentration is maintained.

If you regularly have to top up the cooling system you should contact your Holden Dealer.

WARNING

Corrosion inhibitors and antifreeze fluids are poisonous. Use extreme care when handling. If swallowed seek medical attention.

Refer to Chapter 6 if engine overheats.

ENGINE OIL LEVEL

Check the oil level

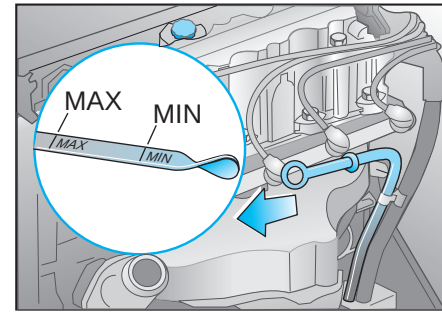
Check the oil level while the vehicle is parked on level ground and the engine switched off and at normal operating temperature.

Before checking the oil level, wait a few minutes after switching the engine off, to allow the oil to settle.

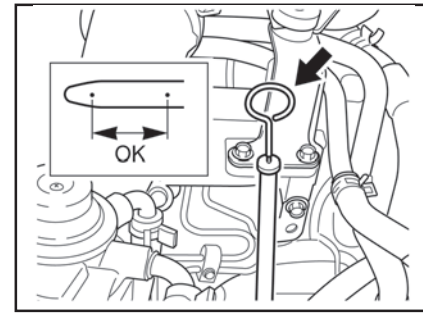
1. Remove the oil dipstick from the oil level tube.
2. Wipe the dipstick clean.
3. Insert the dipstick back into the oil tube as far as it will go.
4. Wait for a few seconds before again removing the dipstick.

The oil level should be maintained between the two dimples, neither going above the MAX mark nor under the MIN mark.

Note: Remember to insert the dipstick firmly after taking the reading.



Petrol, C24SE



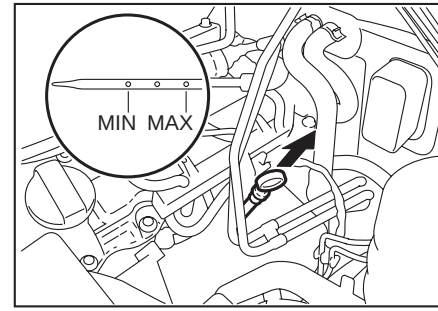
Diesel, 4JH1TC

To add oil

Use the correct oil for your vehicle. Refer to Chapter 8.

1. Remove the engine oil cap.
2. Add the required amount of oil.
3. Wait a few minutes for the oil to settle, then check the oil level again. When the oil level is correct, replace the oil cap and dipstick and clean up any spilt oil.

Note: Non-detergent and other low quality oils are specifically not recommended. The use of break-in oil, tune up compounds, friction reducing compounds and other supplemental additives are not recommended. Their use will increase costs, may be detrimental to the operation of your car and may void your New Vehicle Warranty, to the extent that Holden considers the non-recommended fluid to have affected the specifications or quality of your vehicle.



Petrol, HFV6

ENGINE OIL CONSUMPTION

Every internal combustion engine uses a certain amount of oil, especially when running-in. The engine is dependant on oil for lubricating the cylinder walls, pistons, rings and valve stems. A thin film of oil is left on the cylinder walls, some of which is carried into the combustion chamber and burnt during the combustion process. This also applies to the film of oil on the valve stems which is drawn into the combustion chamber and burnt.

There are several other factors that contribute to the rate of oil consumption in your engine: worn pistons, rings, valve stems and guides; the way in which the vehicle is operated; the quality and grade of oil; the oil level, and dilution of the oil.

Operation of the vehicle

High speed driving and heavy towing increases engine temperature, which lowers oil viscosity, causing more oil to reach the combustion chamber and get burnt away.

Quality and grade of oil

Oil viscosity is a significant factor in oil consumption. If you use an oil which is too thin (low viscosity) your oil consumption will increase. Use only the recommended grades of oil.

Oil level

Maintaining a proper oil level is also an important factor in controlling oil consumption. An over full engine will splash oil onto the cylinder walls in quantities greater than the piston rings can control. This excess oil will be drawn into the combustion chamber and burnt, or may result in aeration of oil in the sump causing damage to the engine.

Dilution

Probably the most prevalent complaint of oil consumption comes from the driver whose vehicle is frequently driven at below normal operating temperatures. The oil becomes diluted by fuel and moisture which settles in the oil pan and may even raise the oil level creating a false reading on the oil level dipstick. For example, in a vehicle that has accumulated 1,500 km of short distance or intermittent city operation and has consumed a normal amount of oil, the level may not have dropped from the full mark, due to dilution. If this vehicle is driven for some distance at highway speeds on a warm day, the dilution elements evaporate, lowering the oil level and the motorist assumes the oil lost has been consumed in the highway operation.

If, after taking into account the above factors, you are still concerned that your engine has excessive oil consumption then you should discuss the situation with a Holden Dealer. Remember that an engine's oil consumption should not be judged until it has run at least 7000 km.

AUTOMATIC TRANSMISSION FLUID LEVEL

The automatic transmission fluid level will be checked by your Holden Dealer when the vehicle is serviced. If an oil leak is seen before the service is due you should consult a Holden Dealer as soon as possible. The transmission fluid level should be checked and the fluid replaced at the intervals shown in the Maintenance Schedule, refer to Chapter 12.

Automatic transmission fluid

Refer to Chapter 8 for automatic transmission fluid. You can buy this fluid from your Holden Dealer.

Checking transmission fluid level

Check the automatic transmission fluid level at each engine oil change. Over filling can cause foaming and loss of fluid. A low fluid level can cause slipping in the transmission. In either case, transmission damage can result.

To check the transmission fluid level preform the following:

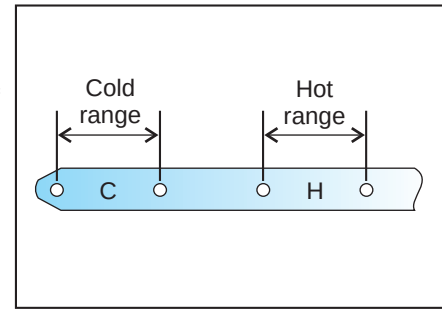
- Ensure the vehicle is on a level surface.
- Set the parking brake and start the engine in P (park).
- With the service brakes applied, move the shift lever through all of the gear ranges, until you return to P.
- Check the fluid level with the engine running at low idle.

  Note: If you have driven for a prolonged period of time or in city traffic in hot weather, wait until the fluid cools down (approximately 30 minutes) before checking the fluid level.
- Remove the dipstick that is located at the rear of the engine compartment on the right (HFV6) or the left (4JH1-TC) side of the vehicle.
- Carefully touch the wet end of the dipstick to find out if the fluid is cool, warm or hot.
- Wipe it clean and push it back in until the cap seats.
- Pull out the dipstick and read the fluid level.

If it felt warm, about normal operating temperature of 80°C, the level should be in the HOT range.

If it felt cool, about room temperature of 20°C, the level should be in the COLD range.

Transmission fluid level checks must be performed with the vehicle at normal operating temperatures. Inspections at any other temperatures should only be considered to be reference checks and may not reflect the actual fluid level.



Note: In very cold weather check the fluid only after the vehicle has completely warmed up. Add just enough fluid to fill the transmission to the full mark. **Do not overfill**.

BRAKE AND CLUTCH FLUID LEVELS

Brake fluid level

WARNING:

Brake fluid is poisonous and corrosive and will damage the paint finish of your vehicle if spilt.

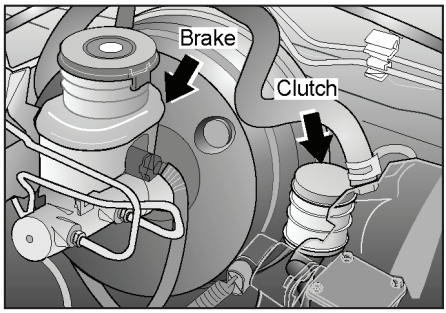
The brake fluid level should be checked weekly. The fluid level is visible through the container and should be maintained between the MIN and MAX level marks. If the fluid is between these levels, do not remove the cap as brake fluid will quickly absorb moisture if exposed to the atmosphere.

If fluid does need to be added, first ensure that the ignition is switched to off.

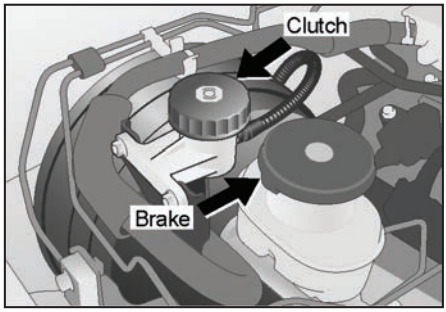
Wipe clean the sides of the cap and remove the cap. Top up with brake fluid (refer to Chapter 8 for the correct brake fluid). Remember to replace the cap and clean any spilt fluid.

Use only new brake fluid. Use of old, used or inferior brake fluid may endanger the functioning of the brake system.

If the brake fluid requires constant topping up it could indicate that a fault exists and you should immediately contact your Holden Dealer.



C24SE and 4JH1-TC



HFV6

Clutch fluid level (if fitted)

The clutch fluid level should be checked weekly. The fluid level is visible through the container and should be maintained between the MIN and MAX level marks. If the fluid is between these levels do not remove the cap, as the fluid will quickly absorb moisture if exposed to the atmosphere.

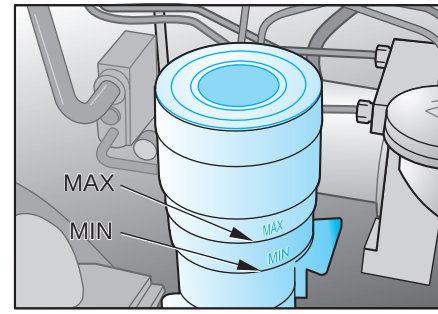
If fluid does need to be added, first ensure that the ignition is switched off.

Wipe clean the sides of the cap and remove the cap. Top up with heavy duty brake fluid (both the clutch system and the brake system use brake fluid) which meets the Holden specification number (refer to Chapter 8). Remember to replace the cap and clean any spilt fluid. Use only new fluid. Use of old, used or inferior fluid may endanger the functioning of the clutch system.

If the clutch fluid requires constant topping up it could indicate that a fault exists and you should immediately see your Holden Dealer.

POWER STEERING AND WASHER FLUID LEVELS

Power steering fluid level



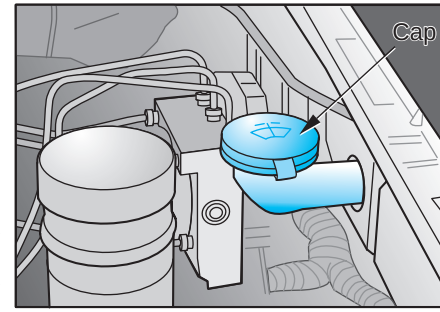
The level should be checked after the vehicle has been driven for a while (at least 20 minutes) so that the fluid is warm. A convenient time is when stopping for petrol.

Ensure the ignition is switched off.

When the fluid is cold the level should not fall below the MIN mark on the reservoir. When the vehicle has been driven for a while and the fluid is hot, the level should be near the MAX mark on the reservoir.

If steering fluid is required, refer to Chapter 8 for the specifications. Do not overfill, and remember to replace the cap tightly and clean up any spilt fluid. If you often need to add fluid, you should see your Holden Dealer.

Washer fluid level



As washer fluid is constantly used the level should be checked and topped up weekly.

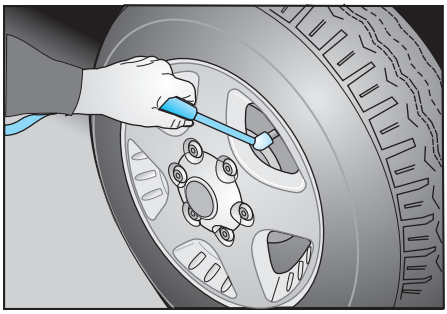
Check that the water tank is filled sufficiently with washer fluid.

For a crystal clear windscreen, use the correct amount of windscreen washer solvent (refer to Chapter 11 for the correct windscreen washer solvent). Do not use ordinary soap or detergent as these not only froth up but will also damage the wiper rubbers.

Make sure the cap is secured.

TYRES

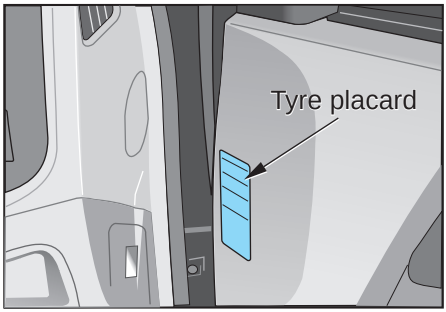
Tyre air pressure



Weekly checking of the air pressure of your tyres (including the spare) ensures your safety, as well as reducing fuel consumption and increasing the life of your tyres.

For constant long distance or rough road driving, daily checking is recommended.

The correct pressure for your tyres is shown on the tyre placard located on the driver's door.



If the vehicle is heavily loaded, the recommended pressure for the tyres is increased (refer to the tyre placard on your vehicle). As the tyres are operating under greater load the weekly air pressure check becomes even more important.

Tyre inflation pressure increases when the tyres have been driven more than 2 km. Therefore, the pressure should be checked when the tyres have been stationary for over three hours. If they must be checked immediately after driving, increase the pressure shown on the placard by 10%.

The inflation pressure in the tyres should be increased according to the load on the vehicle. Therefore, if the vehicle is loaded to half the maximum payload (as shown in Chapter 10) then the tyres should be inflated half way between the minimum and maximum pressures given on the tyre placard. Vehicles driven for prolonged periods over rough roads, particularly in outback conditions, should use the cold tyre inflation pressure on the tyre placard for maximum load condition.

Always use a tyre pressure gauge to check the tyres; simply looking at the tyres is not sufficient.

If the pressure is too low, this can result in considerable tyre warm-up and internal damage, leading to tread separation and even to tyre blowout at high speeds. If the pressure is too high, this can result in reduced traction, increased risk of tyre blowout and poor tyre wear.

Remember to replace any valve dust caps or extensions, as this stops dirt and moisture from fouling the valves. When checking the tyre air pressure, take a look at the condition of the tyre tread and inspect for stones or abnormal wear.

TYRES cont.

Tyre condition, rim condition

Driving over sharp edges can lead to hidden tyre damage and rim damage, which can lead to tyre blowout.

Drive over edges slowly and at right angles if possible. When parking, ensure that the tyres are not pressed against the edge of the curb.

Check the tyres regularly for damage: stones, punctures, cuts, cracks, bulges etc. Check the rims for damage. Consult a Holden Dealer if in doubt.

Alignment and balance

Improper wheel alignment can cause the tyres to wear faster and to wear unevenly. It can also cause the vehicle to pull to the left or right.

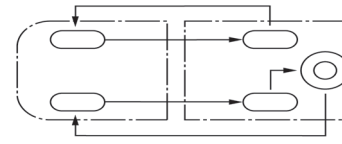
Out-of-balance wheels and tyres can cause annoying vibration and uneven tyre wear. If you suspect either of the above problems exist, have a wheel alignment and balance check carried out by your Holden Dealer.

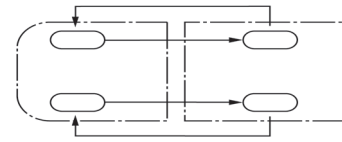
Tyre rotation

Front and rear tyres perform different jobs and can wear differently depending on the types of roads driven, your driving habits, wheel alignment, balance, tyre pressures etc.

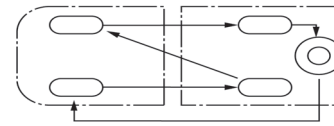
Check the tread depth regularly. If the front tyres have more wear than the rear tyres, have both front wheels changed with the rear wheels so that the tyres with the deeper tread are on the front.

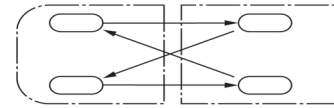
If the wheels are rotated it is recommended that the balance be checked at the same time.





The patterns above (either 4 tyre or 5 tyre) should be followed for normal tyre rotation; the patterns below can be used if one-sided wear is apparent on the tyres.





TYRES cont.

Replacement and repair

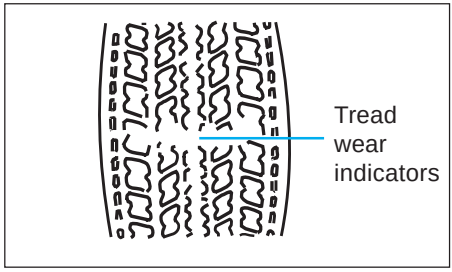
Replacing your factory fitted wheels and tyres with non specified wheels and tyres may affect your warranty as well as your insurance policy. Refer to the tyre placard on your vehicle for tyre size and load rating, see previous page. Using a different size or type of tyre may affect ride, handling, speedometer, vehicle ground clearance, tyre clearance or snow chain clearance.

Take care when using tyres with heavy treads, including tyres made for better grip in the wet. At sustained high speeds, this type of tyre will run at higher temperatures than standard tyres and consequently should only be operated within the limits recommended by the manufacturer. Any doubts about the tyres on your vehicle should be referred to your Holden Dealer.

New tyres should be fitted in pairs to the front. If replacing only one tyre, it should be paired on the same axle with the least worn of the other three.

You should replace your tyres when:

- The tyres are worn to the point where the tread indicators appear, or the cord or fabric is showing. The tyres originally fitted to your vehicle have built-in tread indicators which show up when the tyres are worn.
- The tread or sidewall is cut, split, or cracked deep enough to expose the cord or fabric.
- The tyre has a bump or bulge in it, indicating some kind of internal damage.
- The tyre has a puncture, cut or other damage which can not be repaired because of the size or location of the damage.



Do not attempt to drive on the flat tyre more than is necessary to stop safely. Driving even a short distance can damage the tyre and wheel beyond repair. Tyres which have been repaired or retreaded cannot be driven safely at high speeds. Therefore, their use is not recommended.

BATTERY

Battery maintenance

Your vehicle is fitted with a maintenance free battery, which means that the fluid level does not need to be checked.

WARNING:

- Batteries emit an explosive gas mixture which may be ignited by sparks or naked flames. You should therefore keep sparks and flames away from the battery at all times. Never smoke near a battery.
- Batteries contain sulphuric acid. If acid contacts skin or clothing, flush immediately with a lot of water. In case of eye contact, flush with a lot of water and contact a doctor. Battery acid also damages paint and fabrics. To minimise damage, wash off immediately.
- Take care with all metal objects and tools including items you may wear (e.g. jewellery, ring and metal watch bands) near battery terminals. Metal objects that touch battery terminals can cause sparks and serious heat burns to the user or wearer.
- Never disconnect the battery when the engine is running.

Notes

CHAPTER 8

Specifications

Page

8-2 Engines

8-3 Transmissions, brakes, steering and fuel tank

8-4 Axles, and lubricants

8-5 Recommended oil viscosity / ambient temp

8-6 Dimensions, battery and wheel / tyres

8-7 Identification plates

ENGINES

ENGINE		Petrol C24SE	Petrol HFV6	Diesel 4JH1TC
Description		4 cylinder, SOHC, multi-point fuel injection	6 cylinder, 24 valve, DOHC, electronic fuel injection	4 cylinder, intercooled turbo charged, electronic fuel injection
Piston displacement		2,405 cc	3,565 cc	2,999 cc
Compression ratio		9.6 : 1	10.2 : 1	18.3 : 1
Power, KW @ rpm		94 @ 4,800	157 @ 5300	96 @ 3,800
Torque, Nm @ rpm		207 @ 2,800	313 @ 2800	280 @ 2,000 (man) 294 @ 2,000 (auto)
Firing order		1, 3, 4, 2	1, 2, 3, 4, 5, 6	1, 3, 4, 2
Injection pressure		–	–	1st: 1,98kg/cm² 2nd: 3,44kg/cm²
Bore X Stroke-mm		87.5 X 100	94 X 85.6	94.5 X 104.9
Valve clearance (cold)	Intake	–	–	0.40 mm
	Exhaust	–	–	0.40 mm
Oil specification		Use API SG grade oil, or better, 10W-30 viscosity. For prolonged use in snow areas, use 5W-30 viscosity.	Use SAE 10W/30 SL GF-3 oil.	Use API CG grade, or better, or ACEA B1 / B3) 15W-30, 20W-40, 20W-50 viscosity. For prolonged use in snow areas use 10W-30. Refer to Oil viscosity charts, page 8-5.
Oil capacity inc filter		4.7 litres	6.5 litres	6.5 ltrs (4x2) 7.3 ltrs (4x4)
Coolant capacity		7.3 litres	12.3 litres (man) 12.2 litres (auto)	10.1 litres
Coolant specification		50% water and 50% coolant, conforming to Holden's specification no. HN2217, Part number 92141458 (1 litre) or 92141457 (20 litres).	50% water and 50% Extended life anti-freeze coolant, conforming to Holden's specification no. GM 6277M, Part Number 92145527 (5 litre).	50% water and 50% coolant, conforming to Holden's specification no. HN2217, Part number 92141458 (1 litre) or 92141457 (20 litres).

TRANSMISSIONS, BRAKES, STEERING AND FUEL TANK

Transmissions

Engine		Diesel 4JH1TC	Petrol C24SE	Petrol HFV6	Petrol HFV6	Diesel 4JH1TC
Transmission Type:		Manual	Manual	Manual	Automatic	Automatic
Transmission Code:		MUA5G	MUA5G	AR5	4L60-E	JR405E
Gear ratio : 1	1st	4.008	4.357	3.750	3.059	2.785
	2nd	2.301	2.502	2.250	1.625	1.545
	3rd	1.427	1.501	1.370	1.000	1.000
	4th	1.000	1.000	1.000	0.696	0.694
	5th	0.828	0.809	0.730	–	–
	Rev	3.651	3.970	3.630	2.294	2.272
	High	1.000	–	1.000	1.000	1.000
	Low	2.482	–	2.482	2.482	2.482
Trans oil		2.95 litres	2.95 litres	2.20 L - 2WD 2.30 L - 4WD	7.9 litres	9.4 litres
		Use same oil as used in engine, or SAE 5W-30		SAE 75W-90 GL3	Dexron® III Automatic Trans Fluid	
Transfer		1.30 litres Use same oil as used in engine, or SAE 5W-30				

Brakes

Description	Front wheel disc. Rear wheel drum, incorporating park brake acting on rear wheels.
Fluid type	Brake fluid (for light duty). Hydraulic brake fluid SAE J1703 – DOT3 grade or J1704 – DOT4 grade.

Power Steering

Fluid type:	DEXRON® - III Automatic transmission fluid

Fuel tank

Capacity	76 litres

AXLES AND LUBRICANTS

Axles

Axle(s)	4WD front and rear	2WD rear DX model	2WD rear LT / LX model	Shift on fly system
Description	LSD(rear) Non LSD (front)	Non LSD	LSD	
Ratios	4.300:1 (excl. HFV6 auto) 4.777:1 (HFV6 auto)	4.100:1 (15" tyre man) 4.300:1 (4JH1TC excl. 15" tyre man, HFV6 16" tyre man) 4.555:1 (HFV6 15" tyre auto, C24SE) 4.777:1 (16" tyre auto)	4.100:1 (15" tyre man) 4.555:1 (HFV6 15" tyre auto) 4.300:1 (4JH1TC excl. 15" tyre man, HFV6 16" tyre man) 4.777:1 (16" tyre auto)	
Fluid type	LSD gear oil GL5 grade	Gear oil GL5 grade	LSD gear oil GL5 grade	GL5 grade
Fluid capacity	2.4 litres (rear) 1.4 litres (front)	2.4 litres	2.4 litres (rear) 1.4 litres (front)	0.12 litres
Viscosity	Use SAE 85 W/140	Use SAE 85W/140	Use SAE 85W/140	

LSD = Limited Slip Differential

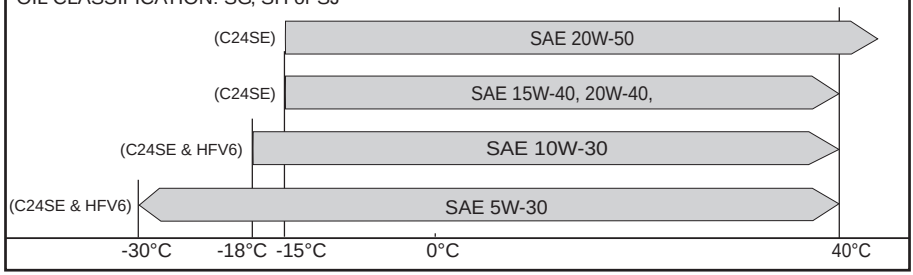
General lubricants

Brake and clutch pedal pivots	NLGI No.2 Lithium Grease with 10% Molydenum Disulphide
Wheel bearings	Wheel bearing grease to Holden HN1227 specification
Universal joint and propeller shaft sliding yoke	NLGI No.2 Lithium Grease with 10% Molydenum Disulphide
Chassis, park brake cables	NLGI No. 2 Multipurpose grease (Lithium soap)

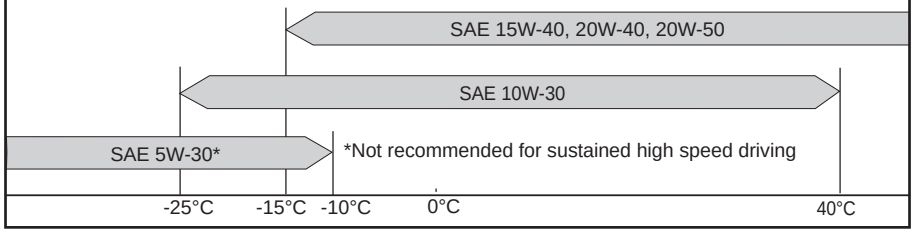
RECOMMENDED OIL VISCOSITY / AMBIENT TEMP

Oil viscosity

ENGINE: C24SE and HFV6 Petrol
OIL CLASSIFICATION: SG, SH or SJ



ENGINE: 4JH1-TC Diesel
OIL CLASSIFICATION: ACEA B1/B3, CG or CH



DIMENSIONS, BATTERY AND WHEELS / TYRES

Dimensions

Wheel base	3,050 mm	
Extra long wheel base	3,200 mm	
Wheel track	2WD 4WD (16" tyre)	1,460 mm (front); 1,460 mm (rear) 1,520 mm (front); 1,525 mm (rear)
Minimum ground clearance	2WD 4WD	200 mm 210 mm

Battery replacement

Engine	Conventional battery - 12 Volts		Maintenance free battery - 12 Volts	
	Cold cranking amps	Amp hours	Cold cranking amps	Amp hours
2.4 litre petrol (C24SE)	500	60	580	65
3.6 litre petrol (HFV6)	–	–	630	79.2
3.0 litre diesel (4JH1-TC)	660	80	730	90

Refer to Chapter 10 for vehicle weights.

Wheel / tyre sizes

	2WD		4WD	
	Wheel	Tyre	Wheel	Tyre
DX	14" x 5.5" Steel	195R 14C	–	–
LX	15" x 6.5" Steel	215/70R 15C (4JH1-TC) 225/75R 15C (HFV6)	16" x 7.0" Steel	245/70R 16
LT	16" x 7.0" Alloy	245/70R 16	16" x 7.0" Alloy	245/70R 16

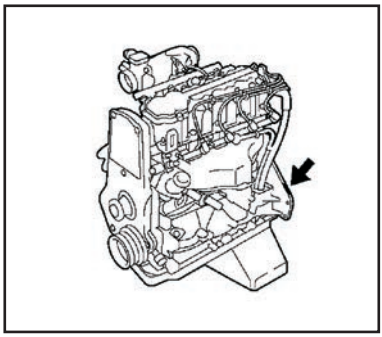
IDENTIFICATION PLATES

Engine number location (petrol)

The engine number is located in two places: On a plate in front of the radiator (refer to the illustration on the following page) and on the cylinder block. The following illustrations show the location of the engine number on the cylinder block.

- Engine serial number C24SE:

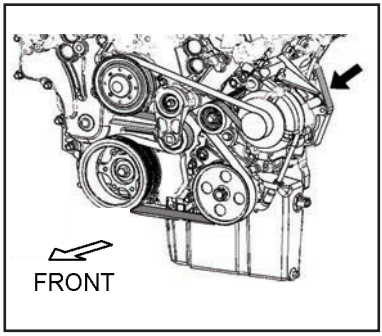
  The 2.4 litre engine serial number is stamped on a pad located at the rear, passenger side of the cylinder block.



C24SE engine

- Engine serial number HFV6:

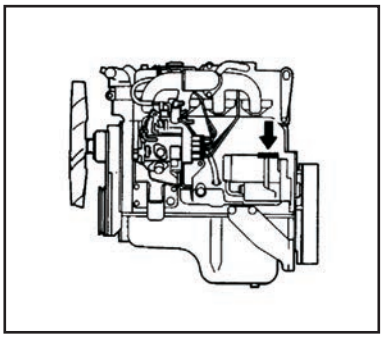
  The 3.6 litre engine serial number is stamped on the lefthand rear of the cylinder block.



HFV6 engine

- Engine serial number 4JH1TC:

  The 3.0 litre engine serial number is stamped at the rear, passenger side of the cylinder block, immediately above the starter motor.



4JH1TC engine

IDENTIFICATION PLATES cont.

Tyre pressure placard

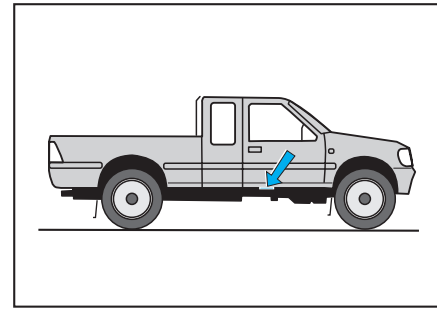
The tyre placard is on the driver's door trim.

Emission label

The emission label is underneath the bonnet.

Vehicle identification number (V.I.N)

The V.I.N. is stamped on the right-hand side of the chassis side member, under the driver's door.



The International Standards Organisation Vehicle Identification Number (ISOVIN)

The ISOVIN. is shown on the compliance plate, option plate and on the body. The ISOVIN. number is used for identification of spare parts.

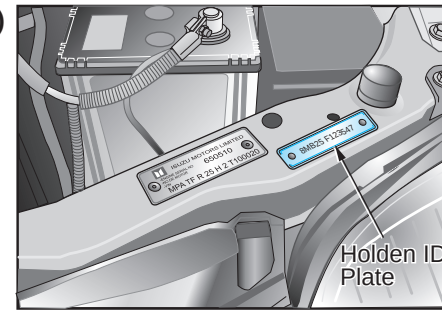
MPA TF R 27 H 3 T100020

- T100020 — Sequential production serial number.
- 3 — Model year code: 3 = 2003, 4 = 2004, etc.
- H — Wheel Base: H = Long; J = Extra Long.
- 27 — Engine: 32 = C24SE 2.4 ltr petrol; 27 = HFV6 3.6 litre petrol; 77 = 4JH1TC 3.0 litre diesel.
- R — Drive: R = 2WD; S=4WD.
- TF — Identification code.
- MPA — Manufacturer Identifier.

IDENTIFICATION PLATES cont.

Holden Identification Plate (if fitted)

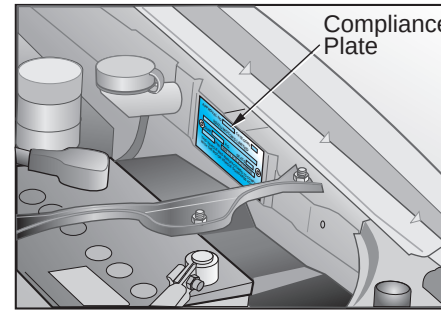
The Holden number on the Holden identification plate is used for warranty identification and Roadside Assistance identification.



Safety compliance plate

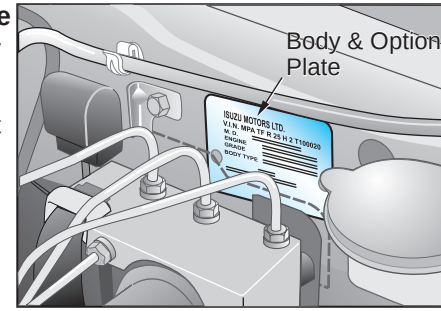
The safety compliance plate shows the approval number, category, manufacturer, model name and model code, Gross Vehicle Mass (GVM), seating capacity, month and year of manufacture, and the Vehicle Identification Number (V.I.N.).

Example of manufacturer model name and model code is: HOLDEN RA RODEO 4WD



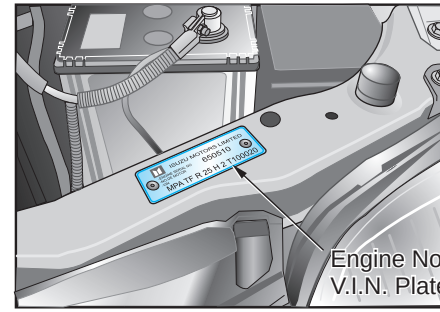
Body and option identification plate

The body and option plate shows body style, body serial number, paint and trim colour combination, paint number, engine transmissions, axle ratio options and built date. The built date is defined as 'the date of manufacture' by the calendar month and year in which the body shell and power train sub-assemblies are co-joined or moved from the production line.



Engine No. V.I.N. Plate

The Engine No. V.I.N. plate shows the engine number and the Vehicle Identification Number (V.I.N.).



CHAPTER 9

Customer Assistance

Page

9-2 Customer assistance

9-3 For New Zealand Holden owners

9-4 Roadside assistance

9-6 New vehicle warranty

9-8 Parts and accessories warranty

9-9 Warranty questions and answers

CUSTOMER ASSISTANCE

We want you to be happy with your new vehicle, together with the people you deal with while you have the vehicle.

Normally, any problems with the sales, operation, servicing or the validity of original equipment supplied with your vehicle will be handled by your Holden Dealer's Sales and Service Department.

We realise however that, with the best intentions, misunderstandings do occur sometimes.

Therefore, we suggest you discuss any concern with one of the Holden Dealer's management people. If you have not received satisfaction from the Sales Manager or Service Manager – go to the General Manager or to the Dealer Principal.

By now you should have satisfaction. If not, the Holden Customer Assistance office is at your disposal.

The Holden Customer Assistance representatives can be telephoned from anywhere within Australia for only the cost of a local call. The Melbourne area number is:

9646 5466

Outside the Melbourne Metropolitan area, the number is:

1800 033 349

If your concern relates to parts / accessories and you have made contact with the Dealer or Distributor without satisfaction, you may contact Holden Service Parts Operations on (03) 9797 7341.

Naturally, telephoning is the quickest and the best way to contact. However, if you prefer to write the address is:

The Manager
Holden Customer Assistance Centre
GPO Box 1714
Melbourne, 3001.

Your letter should clearly outline your concern or query, and include the following:

- Your name and address.
- Telephone numbers, both private and business.
- Servicing Dealer's name and address.
- Vehicle model.
- Vehicle identification number (I.S.O.V.I.N.), refer to the inside front cover of the service booklet in your vehicle's glovebox.
- Date of purchase.
- Current odometer reading.

Most of this information will be found on the Vehicle Identification Certificate, located inside the front cover of the service booklet in your vehicle's glovebox.

Before you write however, remember that the telephone is the quicker and more efficient means of communication.

FOR NEW ZEALAND HOLDEN OWNERS

The information in this Owner's Handbook applies primarily to Australian Holden vehicles and there may be some differences to the Warranty and Owner Assistance provisions for New Zealand. Applicable details for New Zealand are set out in the Holden Warranty and Owner Assistance Information booklet enclosed in the New Zealand glovebox wallet.

New Zealand Assistance can be reached on:

0800 HOLDEN (0800 465 336)

This number provides access to New Zealand Roadside Assistance as well as New Zealand Customer Assistance.

If you prefer to write the address is:

The Manager
Holden Customer Assistance Centre
GPO Box 1714
Melbourne,
Australia, 3001.

ROADSIDE ASSISTANCE

3 YEAR
24 HOUR ROADSIDE ASSISTANCE

1800 Telephone numbers

1800 telephone numbers are tollfree from landline phones, however standard rates apply when using a mobile or public telephone.

Our commitment to your satisfaction

Holden's Roadside Assistance is part of the unequalled commitment by Holden to provide total motoring satisfaction.

From the moment delivery is made, our aim is to provide the finest possible ownership experience, from design through manufacturing to servicing and now beyond to the open road, Australia wide.

We hope the need never arises, but if it does, we'll be there to help through Holden Roadside Assistance.

How does Holden Roadside Assistance work?

Holden Roadside Assistance is provided by Holden Ltd. and delivered by the collective resources of the Australian Automobile Clubs and Associations including the constituents of Assist Australia (AA). To request a copy of the terms and conditions, contact Customer Assistance Service Line on 1800 033 349.

Which vehicles are covered by the service?

As of 1st November 1993 all new Holden passenger and light commercial vehicles are covered for 36 months from the date of first registration.

Holden Roadside Assistance is extended to private and business vehicles, taxis, rental companies, all government and fleet operators.

What will Holden Roadside Assistance do for me?

Holden Roadside Assistance is designed to get you mobile on any road that is trafficable to normal two wheel drive vehicles. In the event of the unexpected happening, from your keys being locked in your vehicle to mechanical and accident advice, help is readily available by simply calling the toll free number 1800 817 100.

All Holden luxury vehicles receive the added benefits of Holden Roadside **Ultra** Assist which includes accommodation, alternative transport, rental vehicle, assistance in case of accident, theft and medical emergency and Australia wide vehicle recovery.

Can I upgrade to Roadside Ultra assist?

Yes, owners can upgrade to Holden Roadside **Ultra** Assistance for a fee by dialling 1800 645 668. To request a copy of the **Ultra** terms and conditions, contact Customer Assistance Service Line on 1800 033 349.

ROADSIDE ASSISTANCE cont.

When do the benefits begin?

Cover begins from the date of first registration. An interim card entitles you to immediately receive all the benefits of Holden Roadside Assistance.

Where can I get Roadside Assistance?

Holden Roadside Assistance is available to you at home, or at the roadside, anywhere in Australia, should you need it. In remote or sparsely populated areas you may experience delays in obtaining Roadside Assistance due to your location, the availability of the service provider and accessibility.

Is there a membership or joining fee?

No, Holden Roadside Assistance is complimentary with every new Holden passenger vehicle and light commercial vehicle for 36 months from the date of first registration.

What will Holden Roadside Assistance cost me?

Materials, fuel and spare parts must be paid for at the time of service. The service personnel attending will issue a receipt for these expenses. Reimbursement of expenses covered by Holden's warranty can be claimed by contacting your local Holden Dealer.

What happens if I sell my vehicle?

Holden Roadside Assistance stays with the vehicle, so if you sell your vehicle during the 36 month period, it is still eligible for the balance of the Holden Roadside Assistance. The new owner simply registers for the service by using the change of ownership form supplied in the Roadside Assistance booklet.

How do I call for assistance?

Simply call Holden Roadside Assistance toll free on 1800 817 100 from anywhere in Australia. For further information regarding the service and full terms and conditions, refer to the Roadside Assistance Kit in the glovebox or call the toll free Customer Assistance Service Line on 1800 033 349.

NEW VEHICLE WARRANTY CERTIFICATE

New Vehicle Warranty application

This Warranty is given by Holden Ltd., ABN 84 006 893 232, ('Holden'). The Warranty applies to the vehicle identified on the inside front cover of the service booklet in your vehicle's glovebox. It is provided to the original and subsequent owners / operators driving the vehicle within Australia during the Warranty Period.
This Warranty is given in addition to all rights conferred by law on that person.

Australian vehicles

This Warranty is only applicable to vehicles purchased and operated in Australia.

Owners of vehicles purchased in Australia but operated overseas should consult the local Dealer in the country of operation about any Warranty applicable to their vehicle. This Warranty does not apply for Holden vehicles exported overseas. Similarly, this Warranty is not provided for vehicles purchased overseas and imported into Australia.

Repairs covered

Subject to the exclusions shown on the following page, this Warranty covers the correction, during the Warranty Period, of any vehicle defect related to materials or workmanship and advised to a Holden Dealer or Authorised Service Outlet, by repair or at Holden's option by replacement.

Warranty Period

The coverage commences from the date of delivery (or in the case of a demonstrator vehicle the date when the vehicle was first placed into service by the Dealer). The coverage expires at the end of the period of 3 years after the commencement date or after the vehicle has travelled 100 000 kilometres, whichever occurs first.

No charge

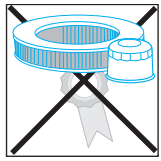
Warranty work undertaken (including parts and labour) will be carried out at no cost to the vehicle owner. However, this work should not be confused with servicing specified in the Maintenance schedule in the service booklet for which a charge is payable.

NEW VEHICLE WARRANTY CERTIFICATE cont.

Warranty exclusions

- **Damage**

  Your Warranty does not extend to the following damage:
  Damage caused by an accident, fire, theft or moving objects striking the vehicle.
  Damage caused by industrial fallout, chemicals or sealants.
  Damage caused by atmospheric fallout or flood, hail, salt, etc.



- **Maintenance items**

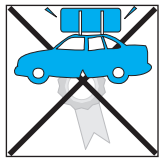
  Services such as brake adjustment, replacement of filters, wiper rubbers etc., which are required as part of normal vehicle maintenance (refer to Chapter 12).

- **Tyres**

  The tyres (and tubes where applicable) fitted to your vehicle are not covered by this Warranty. However, they may be covered by the tyre manufacturer.

- **Batteries**

  Batteries are warranted for 12 months.



- **Misuse**

  This Warranty does not cover damage caused by:

  (a) misuse or abuse of the vehicle such as by racing, rallying, overloading, etc., or neglect
  (b) operation of the vehicle after the defect is known
  (c) failure to carry out proper maintenance services (refer to Chapter 12)
  (d) use of incorrect types and grades of fuel, oil or lubricants
  (e) alteration of the vehicle by anyone not authorised by Holden
  (f) fitting of parts or accessories not recommended by Holden
  (g) any work carried out on the vehicle by anyone except an authorised Holden Dealer or authorised Service Outlet.

PARTS AND ACCESSORIES WARRANTY

Holden warrants Holden approved Parts and Accessories ('Parts' and 'Accessories') for the periods and on the conditions set out below. The Warranty covers the correction, during the relevant Warranty Period, of defects in any such Parts and Accessories, by repair or at Holden's option by replacement.

- **Accessories installed to the new vehicle**

  Holden approved Accessories installed by a Holden Dealer or authorised Service Outlet to the new vehicle at the time of purchase are covered together with the New Vehicle warranty for the period of 3 years or 100 000 km, whichever occurs first.

- **Parts and Accessories installed after new vehicle delivery by a Holden Dealer or authorised Service Outlet**

  Parts and Accessories installed after new vehicle delivery by a Holden Dealer or authorised Service Outlet are covered for 2 years or 50 000 km (whichever occurs first). If the vehicle is still within the New Vehicle Warranty the Parts and Accessories are covered by the longer of:

  2 years / 50 000 km (whichever occurs first)

  or

  the end of the New Vehicle Warranty.

  As an example, an Accessory installed in a 7 month old vehicle would be covered until the end of the New Vehicle Warranty; an Accessory installed in a 2½ year old vehicle would be covered until the end of 4½ years or a further 50 000 km from when the Accessory was installed.

- **Purchased at retail or trade**

  Parts and Accessories purchased at trade or retail and installed by other than a Holden Dealer or authorised Service Outlet are warranted for 1 year from the date of purchase. Please keep a receipt to support warranty claims.

  The Warranty does not cover the labour costs of removal / reinstallation of Parts and Accessories when installed or rectified by other than a Holden Dealer or authorised Service Outlet.

- **Parts and accessories warranty exclusions**

  The tyres (and tubes where applicable) are not covered by this warranty. However, they may be covered by the tyre manufacturer.
  Batteries are warranted for 12 months from date of purchase.
  Parts which are required as part of normal vehicle maintenance are warranted against manufacturing defect at the time of installation. Consult your Holden Dealer to confirm the period of this warranty.

WARRANTY QUESTIONS AND ANSWERS

This section is designed to assist you in understanding the Holden Warranty provided with your new vehicle.

The following are some of the most frequently asked questions for which detailed answers are provided.

Q 1. How do I go about obtaining Holden Warranty service?

It is the responsibility of the Selling Dealer to provide Holden Warranty service, therefore, you should take your vehicle to the Selling Dealer whenever Holden Warranty service is needed. However, if this is not possible, you may go to any other Authorised Holden Dealer. The details recorded inside the front cover of the service booklet will be required by the Dealer.

Q 2. What should I do if my vehicle becomes unsafe or inoperative as a result of a defect which is covered by the Holden New Vehicle Warranty?

You should contact the nearest Authorised Holden Dealer or Holden Customer Assistance Service (refer to earlier in this chapter) as soon as possible, and arrange for that Dealer to carry out the required Holden Warranty Service.

Q 3. What should I do if, in an emergency, Holden Warranty service is required and an Authorised Holden Dealer is not available to provide such service at the time?

If, in an emergency, a repair, replacement or adjustment (covered by the Holden New Vehicle Warranty) is required to enable your vehicle to be operated safely and it is not practical for you to go to an Authorised Holden Dealer, the service (to the extent that it is necessary to enable your vehicle to be operated safely) may be performed by any other qualified mechanic or repairer. A claim for the reasonable cost may be made through the authorised Holden Dealer who would normally provide you with Holden Warranty service. You must also take your vehicle to the Authorised Holden Dealer for inspection of the service and / or completion of any required Holden Warranty service, as soon as possible.

Note: During normal business hours you should seek authorisation from your nearest Authorised Holden Dealer or Holden Customer Assistance Service, prior to repairs being commenced.

Q 4. Are damage or injury, loss of time, inconvenience, commercial or other direct or indirect loss covered by the Holden Warranty?

No, these items are not covered. Holden warranty only covers the repair, replacement or adjustment of those parts of your vehicle which are found to be defective in materials or workmanship. No other types of claim for compensation of any kind, even if the same resulted from a consequence of a defect in materials or workmanship in your vehicle, will be recognised under the Holden New Vehicle Warranty.

You may have rights under the law to claim compensation outside of the Holden New Vehicle Warranty, but any claim based on those rights should be separately pursued.

WARRANTY QUESTIONS AND ANSWERS cont.

Q 5. Will I have to pay for maintenance costs during the Warranty Period?

Maintenance costs are not covered by the Holden New Vehicle Warranty. The Maintenance Schedules in the service booklet (in your vehicle's glovebox) specify the *minimum* maintenance required for your vehicle operating under normal conditions.

The Maintenance items (except where they are required as a result of defects in materials or workmanship) for which you will have to pay include:

- Engine tune-up, including spark plugs replacement.
- Replacement of all filters (including LPG lock off filter – if fitted), engine and other belts, hoses (including LPG hoses – if fitted) wiper blades and clutch linings.
- Cleaning or flushing of fuel, coolant, brake, engine, transmission, differential, power steering etc., after 1500 km.
- Carbon and sludge removal.
- Maintenance servicing of emission control system devices.
- Adding to (or replacing) lubricants.
- Adding to (or replacing) air conditioning refrigerant, after 1500 km.
- Any necessary adjustments to drive belts, transmissions, clutch, park brake etc.
- Wheel balancing – after 1500 km.
- Wheel alignment.
- De-dusting or de-glazing of brake linings or pads – after 1500 km.
- Brake lining wear or damaged brake components due to lining wear.
- Clutch lining wear or damaged clutch components due to lining wear.
- Brake disc pad or disc wear.
- Battery recharging.
- Paint, bright metal finish and trim, due to normal deterioration.
- Body panel adjustment – after 1500 km.
- Door, or bonnet lock adjustments.
- Glass or channel adjustments – after 1500 km.
- Body rattle, squeaks and general tightening of bolts, fasteners and fittings – after 1500 km.
- Chipped glass or breakage.
- Torn or damaged floor mats or carpets.
- Normal wear and tear to trim components.

Q 6. Are my tyres covered by the Holden New Vehicle Warranty?

No. The tyres fitted to your vehicle are covered by a separate warranty provided by the tyre manufacturer. Any Authorised Holden Dealer will assist you by discussing any queries which you might have with respect to the tyre manufacturer's warranty with the tyre manufacturer's representative.

WARRANTY QUESTIONS AND ANSWERS cont.

Q 7. Will I have to pay for any costs or expenses in connection with the provision of Holden Warranty service?

All parts and labour used in carrying out Holden Warranty service at the premises of the servicing Holden Dealer are free of charge. Whenever Holden Warranty service is to be carried out by the servicing Holden Dealer it is your responsibility to deliver your vehicle to the servicing Holden Dealer's premises.

If, as a result of a defect which is covered by the Holden New Vehicle Warranty, your vehicle cannot be driven safely and you arrange for the nearest Authorised Holden Dealer to carry out the required Holden Warranty service, Holden will accept reasonable towing costs to move your vehicle to the nearest Holden Dealer's premises. Before employing a towing company, contact the nearest Holden Dealer and / or Holden Customer Assistance Service (refer to earlier in this chapter) to obtain guidance.

Q 8. Would my vehicle's engine benefit from fuel additives, oil additives or coolant additives not marketed by Holden?

The use of break-in oil, tune-up compounds, friction-reducing compounds and other supplemental additives is not recommended; their use will not only increase operating costs, but may also be detrimental to the operation of your vehicle and may affect the validity of your New Vehicle Warranty.

Only the fluids and lubricants referred to in this handbook should be used.

UNAUTHORISED STATEMENTS IN RELATION TO HOLDEN PRODUCTS

No Holden Dealer or other person is authorised or permitted to give or make any statement, assertion or undertaking in relation to the quality, performance, characteristics, descriptions or fitness for any purpose of any Holden product or in connection with the supply of any Holden product, which is at variance with any written statement, assertion or undertaking on any of these subjects given or made by Holden in its published sales literature, and Holden does not accept any responsibility for such unauthorised action.

CHAPTER 10

Tow and Load

Page

10-2 Loading and towing

10-8 Towing precautions

LOADING AND TOWING

Trailers

The word 'trailer' is used throughout this section and is intended to include all types of towed vehicles, such as a caravan, boat trailer or any other special purpose trailer.

Overloading

Overloading is a safety hazard and could also shorten the life of your vehicle. Never exceed the loads specified for your vehicle or trailer, as specified below.

Vehicle capacities

Unladen Mass – the mass of the vehicle in running order, unoccupied and unladen with all fluid reservoirs filled to capacity (including fuel) and with all standard equipment fitted.

4x2 Unladen Mass (kg)

		C24SE	HFV6		4JH1-TC	
CAB	**REAR BODY**	**DX**	**LX**	**LT**	**LX**	**LT**
Single	Cab-chassis	1300	1426	–	1445	–
Space	Pick-up	–	1581	–	–	–
	Cab-chassis	–	1471	–	–	–
Crew	Pick-up	1535	1657	1657	1680	1740

Note: Cab-chassis figures exclude rear body mass.

For diesel engine add 15 kg to the above weights if the vehicle is fitted with an automatic transmission.

LOADING AND TOWING cont.

4x4 Unladen Mass (kg)

		HFV6		4JH1-TC		
CAB	**REAR BODY**	**LX**	**LT**	**DX**	**LX**	**LT**
Single	Cab-chassis	1526	–	1615	1615	–
Space	Pick-up	–	1696	–	–	1775
	Cab-chassis	–	–	–	1660	–
Crew	Pick-up	1771	1773	–	1850	1850
	Cab-chassis	1686	–	–	1760	–

Note: Cab-chassis figures exclude rear body mass.

For diesel engine add 15 kg to the above weights if the vehicle is fitted with an automatic transmission.

LOADING AND TOWING cont.

Gross Vehicle Mass Rating (GVMR) – the maximum allowable laden mass of the vehicle.

Gross Combination Mass Rating (GCMR) – the maximum allowable sum of the masses of the towing vehicle and the towed trailer.

Gross Towed Mass Rating (GTMR) – the maximum allowable mass of a trailer (including load) that may be towed by the vehicle.

Front Axle Capacity and Rear Axle Capacity – the maximum allowable loads on the ground at the front and rear axles.

C24SE 4JH1-TC diesel engine - A/T only*		**4x2**	**4x4**
GVMR	(kg)	2800	2900
GCMR – without trailer brakes **GCMR** – with trailer brakes	(kg)	3550 4800	3550 4900
GTMR – without trailer brakes **GTMR** – with trailer brakes	(kg)	750 2000	750 2000
Maximum Ball Load	(kg)	200	200
Front Axle Capacity	(kg)	1200	1300
Rear Axle Capacity	(kg)	1680	1680

HFV6 petrol engines - A/T only*		**4x2**	**4x4**
GVMR	(kg)	2800	2900
GCMR – without trailer brakes **GCMR** – with trailer brakes	(kg)	3550 4250	3550 4250
GTMR – without trailer brakes **GTMR** – with trailer brakes	(kg)	750 2250	750 2250
Maximum Ball Load	(kg)	200	200
Front Axle Capacity	(kg)	1200	1300
Rear Axle Capacity	(kg)	1680	1680

* M/T = Manual Transmission

* A/T = Automatic Transmission

LOADING AND TOWING cont.

HFV6 petrol engines - MT only* 4JH1-TC diesel engine - M/T only*		**4x2**	**4x4**
GVMR	(kg)	2800	2900
GCMR – without trailer brakes **GCMR** – with trailer brakes	(kg)	3550 4800	3550 4900
GTMR – without trailer brakes **GTMR** – with trailer brakes	(kg)	750 2500	750 2500
Maximum Ball Load	(kg)	200	200
Front Axle Capacity	(kg)	1200	1300
Rear Axle Capacity	(kg)	1680	1680

* M/T = Manual Transmission

* A/T = Automatic Transmission

Note: It may not be possible to tow a fully laden trailer (total trailer mass near or equal to the GTMR) with a fully laden vehicle (total vehicle mass near or equal to the GVMR), because the total combined weight of the vehicle-trailer combination may exceed the GCMR. In such cases it is necessary to reduce the load in either, or both, the towing vehicle and the trailer so that the combined mass of the towing vehicle and trailer is less than the GCMR.

When towing, you must take into account the additional load the trailer puts on the vehicle. Particular attention must be given to how the trailer changes the loads at the vehicle's front and rear axles.

When the vehicle and trailer are at or near full load, it may be necessary to use a public weighbridge to check that none of the vehicle's, trailer's or towing equipment's capacities have been exceeded.

Country / State regulations

There are various regulations related to towing, and these can vary between the different Countries / States. These regulations normally cover the maximum allowable mass of the trailer and the maximum allowable driving speeds. You must be familiar with the regulations for towing for each of the States in which you intend to tow. Details of the regulations are available from the relevant State road traffic authorities or motoring associations.

LOADING AND TOWING cont.

Towing equipment

The following table shows which towing equipment is essential, according to the total mass to be towed.

For your safety and your vehicle's durability, all equipment marked 'Essential' must be correctly installed and used. Otherwise you may void your New Vehicle Warranty, to the extent that Holden considers the overloading, missing equipment or misuse to have affected the specifications or quality of your vehicle.

C24SE **4JH1-TC diesel engine - A/T only ***			
Total Trailer Mass	2000 kg Tow Bar	Trailer Wiring Harness	Trailer Brakes
Up to 750 kg	Essential	Essential	Check State Laws
Above 750 kg	Essential	Essential	Essential

HFV6 petrol engines - A/T only *			
Total Trailer Mass	2250 kg Tow Bar	Trailer Wiring Harness	Trailer Brakes
Up to 750 kg	Essential	Essential	Check State Laws
Above 750 kg	Essential	Essential	Essential

HFV6 petrol engines - M/T only * **4JH1-TC diesel engine - M/T only ***			
Total Trailer Mass	2500 kg Tow Bar	Trailer Wiring Harness	Trailer Brakes
Up to 750 kg	Essential	Essential	Check State Laws
Above 750 kg	Essential	Essential	Essential

* M/T = Manual Transmission

* A/T = Automatic Transmission

LOADING AND TOWING cont.

Your Holden Dealer can supply and install towing equipment to suit your towing needs.

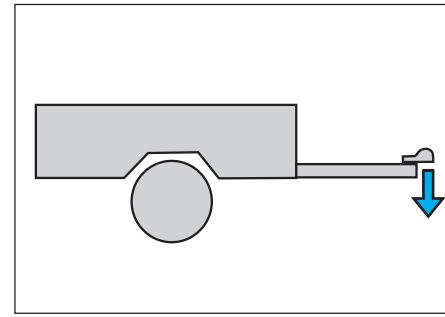
The Holden towing package for Rodeo includes the tow bar, tow bar 'tongue' and wiring harness. A Load Distribution Hitch is also available from Holden.

WARNING:

Holden towing equipment is recommended where it is available. Where it is not available, no recommendation is made as to the make of equipment to be used. Holden will not accept liability for defects occurring in towing equipment not marketed by Holden or for defects in the vehicle arising from the use of such equipment or for loss or injury caused by use of such equipment. The use of such equipment may void your New Vehicle Warranty to the extent that Holden considers the overloading or missing equipment to have affected the specifications or quality of your vehicle.

Tow bar ball load

When a trailer is connected to the towing vehicle, some of the weight of the trailer is applied through the tow ball to the tow bar and towing vehicle. This weight is called the 'tow bar ball weight' or 'ball load'. The maximum ball load can be found in the specifications table earlier in this chapter.



If the ball load is too light or too heavy, the steering, handling and ride characteristics of the vehicle can be adversely affected.

As a general guideline, for single axle trailers, the ball load should be approximately 10% of the loaded trailer mass. For heavy trailers with more than one axle, the ball load should be in the range 5% - 10% of the loaded trailer mass.

Check the ball load capacity of your towing equipment. This may be called the 'Maximum Down Load', 'Maximum Vertical Load', 'Maximum Ball Load' or similar and will be specified on your tow bar.

Establish a target ball load that is in accordance with the recommendations (above) and within the capacity of the towing equipment.

Check the ball load (compare with the target) before coupling the trailer to the towing vehicle.

The ball load can be adjusted by redistributing the contents of the trailer ie. by moving the contents of the trailer forward or backward within the trailer so as to change the trailer's balance.

For further information, contact the roads authority in your relevant Country / State.

WARNING:

Factory fitted rear steps on LT models are not designed for towing.

LOADING AND TOWING cont.

Carrying gas cylinders in vehicles

WARNING:

Gas cylinders can leak, creating a risk of fire or explosion. As a precaution, ensure adequate ventilation when carrying gas cylinders. They must be restrained from rolling around, and where possible, placed in the load area of the vehicle. It is recommended that if gas cylinders are frequently transported that a purpose built carrying compartment be used. Transportation of gas cylinders is regulated by legislation in some states.

Roof racks

For occupant safety, and to avoid damaging the vehicle's roof, there is no released Holden approved roof rack system for Rodeo.

Fitting accessories (Bull bars, driving lamps, insect screens, etc)

When fitting accessories, take care not to restrict airflow through the air conditioner condenser and the radiator, otherwise engine overheating and / or poor air conditioning performance may result.

The mass of all accessories must be considered when evaluating the vehicle's overall loaded condition.

Remember that bull bars may affect airbag operation. Refer to Chapter 6 for details.

Running in before towing

Holden recommends that you drive your new vehicle for at least 1500 km before towing. If you must tow in the first 1500 km of the vehicle's life, do not exceed 80 km/h.

The same applies if the vehicle is equipped with a new or reconditioned engine, transmission or axle.

Off road loading and towing

Driving the vehicle off-road may induce higher loads than normal on-road driving. To reduce the risk of damage to your vehicle (and trailer) and improve safety when operating off-road, reduce the vehicle speed and minimise the load being carried (or towed).

TOWING PRECAUTIONS

- Your vehicle will handle differently when towing. It is a good idea to make a couple of short-distance trips with the trailer to become familiar with the handling characteristics of the vehicle when towing.

- Have your vehicle correctly maintained and serviced. More frequent vehicle maintenance is required when using the vehicle to pull a trailer. Refer to Chapter 12.

- Have your trailer maintained and serviced, with particular attention to the condition of the brakes, tyres, suspension, wheel bearings, lighting and the towing equipment.

- Driving speed should be reduced when towing.

- If the trailer has poor directional stability seek qualified advice eg. the trailer manufacturer or retailer. The use of stabilising equipment should be considered.

- Ensure that all loads – in or on the towing vehicle and in the trailer – are properly secured.

- Use extended-arm rear vision mirrors when the trailer is wider than the towing vehicle.

- Headlights may need realignment after the loaded trailer has been hitched. The use of a load distribution hitch will reduce the need for headlight realignment, making towing safer and more convenient.

- Slow the vehicle and select a lower gear before descending steep hills.

- When heavily loading your vehicle or when towing, your tyres should be inflated to the maximum recommended pressure (refer to Chapter 7 for tyre placard and information about tyre pressures). Also refer to Chapter 4, under 'Loading the vehicle', for driving information with increased loads.

- Be familiar with the regulations for towing for each of the States in which you intend to tow. Contact the road traffic authority in each State for specific advice.

- The brakes on the trailer must be adequate for the braking needs of the trailer and must not adversely affect the performance of the brakes of the towing vehicle.

- Ensure that no part of the tow bar (including the tongue or tow ball) obscures the vehicle's licence plate. If necessary, remove the tow bar tongue when it is not in use.

- Do not use axle-mounted hitches.

Notes

CHAPTER 11

Cleaning

Page

11-2 Interior cleaning

11-4 Caring for paint

11-6 Roof, paint polishing, wheels and tyres

11-7 Exterior glass cleaning

11-8 Cleaning products

INTERIOR CLEANING

WARNING:

Many cleaners may be toxic, flammable or may damage the interior. When cleaning the interior, avoid volatile cleaners such as: acetone, lacquer thinners, enamel reducers, nail polish removers, or cleaners such as laundry soaps, bleaches or reducing agents. Never use carbon tetrachloride, gasoline or naphtha for any cleaning purpose. Be sure the vehicle is well ventilated while using any cleaners and always follow the cleaning manufacturer's recommendations.

Care and cleaning of upholstery

Dust and dirt which accumulates on upholstery should be removed every few weeks; more often with constant driving. This can be done readily with a vacuum cleaner. Before attempting to remove spots and stains, it is necessary to determine as accurately as possible:

- The type of fabric.
- The nature and age of the stain.
- The effect of the stain removal agent upon the colour, structure and general appearance of the upholstery.

It is essential that stains be removed as soon as possible after they have been made. If they are allowed to remain on the fabric for any length of time they very often become oxidised or set, and removal becomes difficult, if not impossible.

Cleaning PVC coated fabrics

Vinyl (PVC) coated fabrics are used for seating, head linings and auxiliary trimming. The grades used vary according to their function. PVC fabrics are generally made by coating fabric with synthetic resins. Care of PVC fabrics is a relatively simple but important matter. The surface should be wiped over with a dry cloth during the regular cleaning of the vehicle.

Should dirt accumulate and become embedded in the material pattern, the following procedure is recommended.

1. Using lukewarm water and soap, work up thick suds on a piece of cheesecloth, and apply to the surface. A soft bristle brush can be used to remove stubborn stains or dirt embedded in the grain of the material.
2. Repeat using only a damp cloth and no soap.
3. Wipe dry with a soft cloth. The above cleaning instructions also apply to the rubber floor mats.

Cleaning leather trim

To remove surface dust and grit, regularly wipe leather with 'Softly' or similar or mild detergent in warm water using a soft cloth or sponge. Clean leather every 3 months with Holden Leather Cleaner or a mild saddle soap and a damp soft cloth to remove in-ground dirt which is not visible. Allow leather to dry naturally and apply Holden Leather Protector or a colourless bee's wax dressing. To revitalise the leather upholstery use Holden Leather Revitaliser.

INTERIOR CLEANING cont.

Cleaning cloth trim

Where the seats in your vehicle are upholstered with cloth, the following instructions should be observed.

- Most loose dirt and dust can be removed by a vacuum cleaner or soft brush.
- Do not use a whisk broom or a coarse hair brush.
- If normal soiling should take place it is recommended that the fabric be sponged lightly with warm water containing a detergent and a small amount of ammonia. The fabric should then be rubbed lightly, and if necessary, sponged again to remove anything stubborn. Soak up excess fluid with a dry cloth.

Vehicles with air bags

Use only a dry cloth or mild cleaner to clean the steering wheel and instrument panel. Do not use any aggressive cleaning agents.

Cleaning carpet

Thoroughly brush or vacuum the carpet. In many instances the carpet may require no further cleaning. If the carpet is extremely soiled, thoroughly vacuum it to remove loose dirt then, using a good quality carpet cleaner, clean approximately one square foot at a time. After each area is cleaned, remove as much of the cleaner as possible with a vacuum cleaner.

Cleaning seat belts

Cleaning of seat belts can be carried out by using a mild non-abrasive soap and lukewarm water. After washing be sure to thoroughly sponge the washing solution out of the belts.

WARNING:

Do not bleach or dye seat belts since this may severely weaken them.

Cleaning interior glass

The interior glass area of the vehicle should be cleaned using Holden Glass Cleaner with a clean soft cloth. Care must be taken when cleaning inside the rear window so as not to damage the demister.

Never use abrasive cleaners on any vehicle glass, as they may cause scratches.

CARING FOR PAINT

To help preserve that shiny new vehicle finish, special attention should be given to correctly treating those conditions that can damage the paint.

Road bloom: If, over a long period of time, oils, dirt, exhaust and other pollutants are allowed to build up, they may combine to affect the paint finish.

Etching: Tree sap, bird droppings, salt water and other natural deposits can, if allowed to stay on the paint, leave an etching or scarring.

Pitting: Tar spots and some industrial fallout can react chemically and may cause pitting to the surface of the paint.

Paint inspection

Regular inspection of the vehicle should be made for scratch marks, cracks or damaged areas, all of which could develop rust. Any deep scratches, cracks or break-down in the finish should be repaired without delay. Care should be taken to ensure that any rusting is counteracted immediately, otherwise rust 'creep' will extend beyond the damaged area, particularly in tropical or coastal areas, where the moist, or salt-laden air accelerates rusting. The paint finish of the vehicle gives a very high degree of protection against the weather, but it should be realised that wear and deterioration occur when the vehicle is exposed to elements for prolonged periods. The vehicle therefore should be garaged whenever possible.

To prevent damage of the paint surface, foreign matter should always be removed as soon as possible. Due to the acidity, it is recommended that foreign matter such as bird droppings be removed within 24 hours.

The way the paint keeps its condition over time can be assisted by you. The easiest way to keep that paint looking bright and shiny is to keep it clean. A wash once a week will do wonders. However, it must be done correctly.

Washing your vehicle

- Never use an automatic wash that has anything that touches the paint other than water.
- Wash your vehicle once a week to remove any build up of road grime that may have been deposited on your paint.
- Find a cool, shady spot to wash it. Do not ever wash it in direct sunlight.
- Hose the vehicle down from top to bottom with lots of cold water. This removes any grit or other loose particles and substances. Do not use a sponge or cloth yet.
- Fill a bucket with luke warm water and add no more than 2 capfuls of gentle detergent. Do not use hot water, strong soap or chemical detergents.
- To remove bird droppings on paint, soak with a wet sponge for several minutes before washing off. If still evident, use a solution of one litre of water and 110 grams of dissolved baking soda (Bicarbonate of Soda). Flush the washed parts with clean water.
- Starting with the roof, use a clean sponge to clean a small section at a time. Do not allow liquid to dry before rinsing off that section with clean water. When you have completed each section, rinse the whole vehicle again with cold water.
- Dry the clean vehicle thoroughly with a good quality Chamois.

CARING FOR PAINT cont.

WARNING:

Care should be taken when moving the vehicle after washing, in case water has affected the brakes. Applying the brakes lightly will indicate whether they have been affected. To dry them quickly, lightly apply the brakes while maintaining a slow forward speed with a clear area ahead, until brake performance returns to normal.

Removing stains, such as grease, oil and tar spots

Just washing your vehicle regularly means that most of the harmful substances deposited on the paint will be removed before they can cause permanent damage. However, some substances are not easy to remove. So if you notice stains on the paint, make sure that you remove them at the earliest possible opportunity.

Grease and oil, and even tar if it is fresh, can be removed from the paint with a little kerosene or turpentine. As a precaution against staining, wash and polish the area as soon as possible after the stain has been removed.

A rubbing or cutting compound can be used after a normal wash. But this should never be done on a regular basis because it removes paint.

WARNINGS:

- Some chemical cleaners used for removing road oils and tars from painted surfaces have been found to be detrimental to automotive paint.
- If petrol is spilt on the paint when refilling, flush off immediately with clean water, as petrol has a tendency to stain or soften the new paint finish during the weathering out period, particularly when the vehicle is exposed to high temperatures.
- Petrol must not be used to clean any painted or plastic surfaces.

Ventilation system intake

The intake area between the bonnet and the windscreen may collect leaves, which will impair air flow into the vehicle.

It is recommended that this area be cleared of debris whenever you wash your vehicle.

Under vehicle washing

Your vehicle has a factory-applied PVC undercoating in the wheel arches (including longitudinal members) which provides permanent protection and needs no special maintenance. The surfaces of the vehicle underside not covered by PVC are provided with a durable protective wax coating. Once a year, preferably before the start of the cold season the wax coating and PVC coating should be checked and if necessary, restored to perfect condition. Commercial bitumen and rubber materials can damage PVC coating. Have all work on the underbody performed by a Holden Dealer, as it requires knowledge of the specified materials and experience concerning their application.

The underbody should be washed following the end of the cold weather season to remove any dirt adhering to the underbody, since this may also contain salt.

ROOF, PAINT POLISHING, WHEELS AND TYRES

Polishing

Under normal circumstances the paint does not need polishing to retain its shine. A weekly wash is sufficient. However, the use of a Polymer Glaze about every three months will reduce the effects of road bloom by removing natural contaminants which can build up on the paint.

Do not attempt to apply a polish without first washing. This will ensure that all the loose grit, surface dirt, dust or grease etc, is removed.

Tyres

Sponging with cold water is all that is necessary for normal cleaning. Oil and grease should be removed with soap and water or detergent. For tar or other substances, a mild abrasive, such as mechanic's hand soap or kitchen cleaning powder, may be used if necessary. Thoroughly wash the tyres with water to finish. Petrol must not be used for cleaning tyres.

Alloy wheels

To preserve the original appearance of alloy wheels, keep them clean and free from build up of road dirt. Do not use abrasive cleaners on alloy wheels.

EXTERIOR GLASS CLEANING

Glass cleaning – general

Special care should be taken to avoid scratching the glass. If it is cleaned at the same time as the rest of the vehicle, there is a possibility that particles of grit will cause fine scratches. Flush off any mud on the glass when washing the body, but leave the final cleaning and polishing until afterwards. Use Holden Glass Cleaner and wash each section of glass in turn, making sure that the water, its container and the sponge are quite clean and free from grit. Clean old linen cloth is better than new material for polishing glass.

Windscreen

It is important that the windscreen be kept clean so that the wiper blades may be as effective as possible. Old wiper blades can cause windscreen scratching and so should be regularly inspected and replaced.

Abrasive cleaners should never be used to clean glass as they can cause scratches, impairing night vision. After the windscreen has been cleaned with a wet sponge it should be wiped over with a soft, lint free cloth or chamois.

It is recommended that Holden Optikleen be added to the windscreen washer reservoir.

Wiper blades

Oil and road scum thrown up on the windscreen will cause smearing when the wipers are switched on, when the dirt is transferred onto the wiper blades. Many owners, while they methodically clean the windscreen glass, omit to clean the wiper blades and consequently smearing of the glass reappears immediately the wiper blades are used. The blades can be cleaned by lifting them off the windscreen and cleaning with Holden Optikleen and a clean cloth.

Do not operate the wiper blades by hand as this may damage the wiper drive mechanism.

If the wiper blades are used to clean dust and dirt from the windscreen in dry conditions always use the washer system first to wet the windscreen. Ensure that the windscreen washer reservoir is not empty.

Should the wiper blades be frozen to the windscreen, they must be lifted off and freed by hand before switching on the wipers.

CLEANING PRODUCTS

PART NUMBER	SIZE	DESCRIPTION	USAGE
92145132	237 ml	Quick and Easy Speed Finish	Seals in a deep, lustrous glazed finish. Long life protection from oxidation, salt and weather damage.
92145418	437 ml	Quick and Easy Speed Finish	Seals in a deep, lustrous glazed finish. Long life protection from oxidation, salt and weather damage.
92145130	237 ml	All Purpose Cleaner	Cleans and deodorises velour, most vinyl upholstery, hood linings, mats and carpets.
92145416	437 ml	All Purpose Cleaner	Cleans and deodorises velour, most vinyl upholstery, hood linings, mats and carpets.
92145133	237 ml	Glass Cleaner	Cleans all glass surfaces.
92145419	437 ml	Glass Cleaner	Cleans all glass surfaces.
92140005	500 ml	Optikleen	Windscreen washer solvent
92140004	5 ml	Optikleen Sachet	Windscreen washer solvent; 1 sachett per washer bottle refill.
92145129	237 ml	Hi Suds Car Wash	Cleans vehicle exterior.
92145415	437 ml	Hi Suds Car Wash	Cleans vehicle exterior.
92145131	237 ml	Vinyl and Trim Dressing	Seals and protects vinyl upholstery and plastic trim.
92145417	437 ml	Vinyl and Trim Dressing	Seals and protects vinyl upholstery and plastic trim.
92145140	120 ml	Leather Revitaliser	Revitalises the leather upholstery.
92145141	120 ml	Leather Cleaner	Cleans the leather upholstery.
92145142	120 ml	Leather Protector	Protects the leather upholstery.
92145143	1 Kit	Leather Care Kit	Contains leather revitaliser, cleaner and protector.
92145135		Chamois	Cloth for wiping off excess water from the vehicle's exterior after washing and rinsing.
92145134		Handle Grip Sponge	Sponge for washing the vehicle.
92145136		Microfibre Glass Cleaning Cloth	Cloth for cleaning all glass surfaces.
92145137		Microfibre General Purpose Cleaning / Polishing Cloth	Cloth for general purpose cleaning / polishing.

Notes

CHAPTER 12

Servicing

Page

12-2 Service intervals

12-3 Additional service requirements

12-4 Maintenance schedule

12-7 Additional service requirements: oil changes

12-9 Maintenance coupons

SERVICE INTERVALS

When it comes to service, remember that your Holden Dealer has the trained personnel and specialised equipment to correctly service your vehicle. Your Dealer invites you to return for all your service needs both during and after the warranty period.

The safety, economy, emission control, performance and reliability of your vehicle cannot be assured unless regular maintenance is performed, preferably by factory-trained technicians at your Holden Dealer.

Therefore, it is in the owner's interest that the following services are performed at the specified Distance or Months (whichever occurs first).

5000 km – 3 months
10 000 km – 6 months
20 000 km – 1 year
30 000 km – 1.5 years
40 000 km – 2 years
50 000 km – 2.5 years
60 000 km – 3 years
70 000 km – 3.5 years
80 000 km – 4 years
90 000 km – 4.5 years
100 000 km – 5 years
110 000 km – 5.5 years
120 000 km – 6 years

The three month (5000 kilometres) service will be performed labour free by the Selling Dealer.

This service may be carried out by another Holden Dealer provided you have a letter of Introduction from the Selling Dealer.

Your Dealer will supply the necessary Letter of Introduction on request.

The oil specified for diesel engines is APICG grade (or ACEA B1 / B3) or better. If a lesser grade of oil is used, the oil must be changed between the regular service interval of 10 000 km or 6 months.

The services shown in this schedule between 10 000 and 120 000 are to be performed again after 120 000 km at the same intervals.

Note: All maintenance services as listed in this Handbook and replacement of service items are the responsibility of the owner and as such are not considered, under the provisions of the New Vehicle Warranty to be rectification of defective material and workmanship. Items such as wheel alignment, necessary adjustments to drive belts, transmission, clutch, parking brake, etc. or any other items which may require servicing due to fair wear and tear will be carried out at the owner's cost.

Damage caused by failure to have proper maintenance services carried out by an authorised Holden Dealer or authorised Service Outlet, or in accordance with Holden's specifications, may void your New Vehicle Warranty. It is strongly recommended that you read the New Vehicle Warranty in Chapter 9 so that you are aware of your Warranty exclusions.

Service coupons are provided further on in this chapter. When each service is performed the coupon is removed so that the following service coupon is readily visible to remind you when the next service is due.

After the service is completed, the owner should check that the service has been validated, by the Dealer stamping and signing the coupon stub. This is important as it will not only assist in the determination of warranty claims, but will enhance the value of the vehicle when selling.

ADDITIONAL SERVICE REQUIREMENTS

If your vehicle operates under any of the extreme conditions listed in the following table it is recommended that some items be serviced more frequently than the intervals specified in the Maintenance Plan.

Note: The extra services listed below need only be used if your vehicle operates continuously under the conditions specified.

If you operate under any of these conditions on a one off basis (e.g. holiday trip) then an extra service should be for that period only.

As a guide, if you operate continually for a period of one month or 1000 kilometres under any of the extreme conditions, then Holden recommends additional services.

If at any time it is considered that the above items or other items should be more frequently serviced due to the type of operation or before a long trip, discuss the situation with the service manager of your Holden Dealer.

Change engine oil every 5000 km			C	D	E
Replace engine oil filter every 5000 km			C	D	
Change air cleaner element every 5000 km			C		
Inspect air cleaner element every 2500 km (for 4JH1TC)			C		
Inspect steering system for looseness or damage every 5000 km		B	C		
Inspect universal joints and sleeve for wear every 5000 km		B	C		
Change manual transmission and transfer case oil every 20 000 km		B	C		
Change auto trans fluid and strainer every 40 000 km	A	B	C	D	E
Change differential oil every 20 000km		B	C		E
Inspect front brake pads and disc every 5000 km	A	B	C		E
Inspect rear brake pads and lining and drum every 5000 km	A	B	C		E
Inspect exhaust system every 5000 km	A	B		D	

A = Repeated short trips.

B = Driving on rough roads.

C = Driving on dusty, muddy roads and / or off road.

D = Repeated short trips in extremely cold weather.

E = Caravan or trailer towing.

MAINTENANCE SCHEDULE

For service specifications after 120 000 km refer to the tearout coupons.

Use odometer reading or years, whichever occurs first	x 1000 km	5	10	20	30	40	50	60	70	80	90	100	110	120
	or years	.25	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
UNDER BONNET														
Engine oil #			R	R	R	R	R	R	R	R	R	R	R	R
Engine oil filter			R	R	R	R	R	R	R	R	R	R	R	R
Oil leakage and contamination		I	I	I	I	I	I	I	I	I	I	I	I	I
Fluid levels: power steering, brake, washer, clutch, battery (if required)		I	I	I	I	I	I	I	I	I	I	I	I	I
Coolant level 50% concentration		I	I	I	I	I	I	I	I	I	I	I	I	I
Coolant change		Change every 5 years (regardless of kms)												
Radiator cap and cooling system pressure test				I		I		I		I		I		I
Idling speed and acceleration		I	I	I	I	I	I	I	I	I	I	I	I	I
P Timing belt , inspect tensioner and crank drive gear (C24SE)												R		
All hoses and pipes in engine compartment for deterioration or leaks		I	I	I	I	I	I	I	I	I	I	I	I	I
Clean front of radiator core and A/C condensor				I		I		I		I		I		I
D Fuel filter (4JH1-TC)				R		R		R		R		R		R
P Fuel filter (C24SE)				R		R		R		R		R		R
P Fuel filter (HFV6)						R				R				R
Air cleaner element *		I	I	I	I	R	I	I	I	R	I	I	I	R
Accessory drive belt condition		I	I	I	I	I	I	I	I	I	I	I	I	I
D Valve clearance (4JH1-TC)		A		A		A		A		A		A		A
P Spark plugs (C24SE)					R			R			R			R
P Spark plugs (HFV6)														R
D Injection timing		I												
Power steering fluid		I	I	I	I	R	I	I	I	R	I	I	I	R
Clutch fluid		Change every 2 years (regardless of kms)												
Brake fluid		Change every 2 years (regardless of kms)												
Automatic transmission fluid * (HFV6)		I	I	I	I	I	I	I	I	I	I	R	I	I

MAINTENANCE SCHEDULE cont.

Use odometer reading or years, whichever occurs first	x 1000 km	5	10	20	30	40	50	60	70	80	90	100	110	120
	or years	.25	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
UNDER VEHICLE														
Manual transmission oil *		I	I	I	I	R	I	I	I	R	I	I	I	R
Automatic transmission fluid *		I	I	I	I	I	I	I	I	I	I	I	I	I
Automatic transmission shift linkage (HFV6)		L	L	L	L	L	L	L	L	L	L	L	L	L
Transfer case oil*		I	I	I	I	I	I	I	I	I	I	I	I	I
Shift on the fly system gear oil		I	I	I	I	I	I	I	I	I	I	I	I	I
Universal joints and splines for wear *				I		I		I		I		I		I
Universal joints and sliding sleeve *		L	L	L	L	L	L	L	L	L	L	L	L	L
Differential gear oil *		I	I	I	I	R	I	I	I	R	I	I	I	R
Exhaust system *		I	I	I	I	I	I	I	I	I	I	I	I	I
Brake pads / disks and linings / drum wear*			I	I	I	I	I	I	I	I	I	I	I	I
Wheel nuts		T	T	T	T	T	T	T	T	T	T	T	T	T
Front hub bearing grease					R			R			R			R
Rear hub bearing grease		Replace every 240 000 km												
Front and rear hub bearings for looseness			I	I	I	I	I	I	I	I	I	I	I	I
Front axle shaft rubber boot for damage				I		I		I		I		I		I
Axle housings – visual inspection for distortion or damage				I		I		I		I		I		I
Vehicle ride height		I	I	I	I	I	I	I	I	I	I	I	I	I
Tyre pressure and wheels for damage		I	I	I	I	I	I	I	I	I	I	I	I	I
Tyre rotation		Rotate as necessary												
Carbon canister (HFV6)						I				I				I

I: Inspect / check and correct or replace as necessary **R**: Replace or change
T: Tighten to specified torque **L**: Lubricate **A**: Adjust **P**: Petrol **D**: Diesel

*: under extreme operating conditions more frequent maintenance is required, refer page 12-3.

#: Diesel engine oil change intervals must be reduced to 5000 km if using a grade of engine oil less than APICG or ACEA B1 / B3 classification.

MAINTENANCE SCHEDULE cont.

Use odometer reading or years, whichever occurs first	x 1000 km	5	10	20	30	40	50	60	70	80	90	100	110	120
	or years	.25	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
UNDER VEHICLE cont.														
General under body check: steering and suspension* components (inc. shock absorber, all rubber bushes and boots, ball joints, connections, leaf springs, coil springs, torsion bar, stabiliser bar, park brake cables, fuel system, exhaust system, brake system, bolts, nuts, hoses, pipes and check for leaks.		I	I	I	I	I	I	I	I	I	I	I	I	I
INSIDE VEHICLE														
Clutch pedal travel and free play		I	I	I	I	I	I	I	I	I	I	I	I	I
Steering wheel free play		I	I	I	I	I	I	I	I	I	I	I	I	I
Brake pedal travel and free play		I	I	I	I	I	I	I	I	I	I	I	I	I
Park brake lever travel		I		I		I		I		I		I		I
Operation of lights, wipers, switches & controls		I	I	I	I	I	I	I	I	I	I	I	I	I
Park brake ratchet for wear or damage				I		I		I		I		I		I
ROAD TEST														
Check vehicle on the road for braking, steering, engine response and trans operation. Check cruise control, park pawl operation, A/C performance and neutral start switch		I	I	I	I	I	I	I	I	I	I	I	I	I
SERVICE TIMES														
Petrol engine C24SE		–	1	2.2	2.1	2.1	1	3.3	1	2.1	2.1	2.9	1	3.2
Diesel engine 4JH1-TC		–	1	2.2	1.9	2.3	1.4	3.1	1	2.3	1.9	2.8	1	3.2
Petrol engine HFV6		–	1	1.6	1.9	2.3	1	2.5	1	2.3	1.9	2.2	1	3.4
add for 4WD		–			0.4			0.4		0.2	0.4			0.4

- The owner will be charged for all lubricants and materials used plus labour at the times recommended on the previous page.
- The repair or replacement of any part found faulty during a service check and not covered by Holden Warranty will be added to the charges.
- Where any deficiencies are noted, such items should be reported to the owner / operator so that the extra work required can be authorised.
- The use of break-in oil, tune up compounds, friction reducing compounds and other supplemental additives are not recommended; their use will not only increase operating costs, but may indeed be harmful to your vehicle.

ADDITIONAL SERVICE REQUIREMENTS: OIL CHANGES

15,000 km or 9 Months oil change	Intermediate oil change carried out at ..... km on (date) ..... Servicing Dealer .....
25,000 km or 15 Months oil change	Intermediate oil change carried out at ..... km on (date) ..... Servicing Dealer .....
35,000 km or 21 Months oil change	Intermediate oil change carried out at ..... km on (date) ..... Servicing Dealer.....
45,000 km or 27 Months oil change	Intermediate oil change carried out at ..... km on (date) ..... Servicing Dealer .....
55,000 km or 33 Months oil change	Intermediate oil change carried out at ..... km on (date) ..... Servicing Dealer .....
65,000 km or 39 Months oil change	Intermediate oil change carried out at ..... km on (date) ..... Servicing Dealer .....

ADDITIONAL SERVICE REQUIREMENTS: OIL CHANGES

75,000 km or 45 Months oil change	Intermediate oil change carried out at ..... km on (date) ..... Servicing Dealer .....
85,000 km or 51 Months oil change	Intermediate oil change carried out at ..... km on (date) ..... Servicing Dealer .....
95,000 km or 57 Months oil change	Intermediate oil change carried out at ..... km on (date) ..... Servicing Dealer .....
105,000 km or 63 Months oil change	Intermediate oil change carried out at ..... km on (date) ..... Servicing Dealer .....
125,000 km or 69 Months oil change	Intermediate oil change carried out at ..... km on (date) ..... Servicing Dealer .....
135,000 km or 71 Months oil change	Intermediate oil change carried out at ..... km on (date) ..... Servicing Dealer .....

5000 km or 3 months SERVICE

This coupon should not be removed until the vehicle is presented for service.

Owner's Name
Mr.
Mrs. .....
Miss.
Other.....

Address .....

Town .....

State ..... Postcode .....

Reg. no. ..... Engine no .....

I.S.O.V.I.N. ..... Model .....

Odometer reading ..... Date of Acquisition .....

Selling Dealer's Stamp and Signature .....

This vehicle has been thoroughly checked in accordance with the items on the reverse side of this voucher.

Servicing Dealer's Stamp and Signature

Servicing Dealer .....

Town ..... State .....

Owner's signature .....

This service will be carried out without charge to the owner. The owner will, however, be charged for any lubricants or parts used.

5000 km or 3 months Service Validation

This vehicle has been thoroughly checked in accordance with the 5000 km \ three month service.

Dealer .....

Service Manager's signature .....

Date ..... Odometer reading .....

Under bonnet – petrol only

- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

Under bonnet – diesel only

- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Adjust valve clearance
- ❒ Check injection timing
- ❒ Check power steering fluid

Under vehicle – petrol and diesel

- ❒ Check clutch fluid
- ❒ Check brake fluid
- ❒ Check manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Check differential gear oil
- ❒ Check exhaust system
- ❒ Tighten wheel nuts
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check park brake lever travel
- ❒ Check operation of lights, wipers, switches and controls

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

10 000 km or 6 months

SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1 hour
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature ..... Date .....

Additional services performed: .....

.....

.....

.....

.....

.....

10 000 km or 6 months Service Validation

Servicing Dealer .....

Brake fluid changed: YES/NO

Date of Service .....

Odometer .....

Signed .....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

Under vehicle – petrol and diesel

- ❒ Check clutch fluid
- ❒ Check brake fluid
- ❒ Check manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Check differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / disks and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Check front and rear hub bearings for looseness
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check operation of lights, wipers, switches and controls

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

20 000 km or 1 year SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.
I understand I will be charged for the following hours of labour:

- 2.2 hours with C24SE engine
- 2.2 hours with 4JH1-TC engine
- 1.6 hours with HFV6 engine
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature ..... Date .....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter (C24SE only)
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

20 000 km or 1 year Service Validation

Servicing Dealer .....
Brake fluid changed: YES/NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
.....
.....
.....
.....

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Adjust valve clearance
- ❒ Check power steering fluid

Under vehicle – petrol and diesel

- ❒ Check clutch fluid
- ❒ Check brake fluid
- ❒ Check manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Check universal joints and splines for wear
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Check differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / discs and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Check front and rear hub bearings for looseness
- ❒ Check front axle shaft rubber boot for damage
- ❒ Check axle housings for distortion or damage
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check park brake lever travel
- ❒ Check operation of lights, wipers, switches and controls
- ❒ Check park brake ratchet for wear or damage

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

30 000 km or 1½ years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 2.1 hours with C24SE engine
- 1.9 hours with 4JH1-TC engine
- 1.9 hours with HFV6 engine
- add 0.4 hours for 4WD
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature ..... Date .....

Additional services performed: .....

.....

.....

.....

.....

.....

30 000 km or 1½ years Service Validation

Servicing Dealer .....

Brake fluid changed: YES/NO

Date of Service .....

Odometer .....

Signed .....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Replace spark plugs (C24SE only)
- ❒ Check power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

Under vehicle – petrol and diesel

- ❒ Check clutch fluid
- ❒ Check brake fluid
- ❒ Check manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Check differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / disks and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Replace front hub bearing grease
- ❒ Check front and rear hub bearings for looseness
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check operation of lights, wipers, switches and controls

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

40 000 km or 2 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 2.1 hours with C24SE engine
- 2.3 hours with 4JH1-TC engine
- 2.3 hours with HFV6 engine
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature ..... Date .....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Replace power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

40 000 km or 2 years Service Validation

Servicing Dealer .....
Brake fluid changed: YES/NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
.....
.....
.....
.....
.....

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Adjust valve clearance
- ❒ Replace power steering fluid

Under vehicle – petrol and diesel

- ❒ Replace clutch fluid
- ❒ Replace brake fluid
- ❒ Replace manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Check universal joints and splines for wear
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Check differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / discs and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Check front and rear hub bearings for looseness
- ❒ Check front axle shaft rubber boot for damage
- ❒ Check axle housings for distortion or damage
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check park brake lever travel
- ❒ Check operation of lights, wipers, switches and controls
- ❒ Check park brake ratchet for wear or damage

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

50 000 km or 2½ years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.
I understand I will be charged for the following hours of labour:

- 1.4 hours with diesel engine
- 1 hour with petrol engines
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature ..... Date .....

50 000 km or 2½ years Service Validation

Servicing Dealer .....
Brake fluid changed: YES/NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
.....
.....
.....
.....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

Under vehicle – petrol and diesel

- ❒ Check clutch fluid
- ❒ Check brake fluid
- ❒ Check manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Check differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / disks and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Check front and rear hub bearings for looseness
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check operation of lights, wipers, switches and controls

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

60 000 km or 3 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 3.3 hours with C24SE engine
- 3.1 hours with 4JH1-TC engine
- 2.5 hours with HFV6 engine
- add 0.4 hours for 4WD
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature ..... Date .....

Additional services performed: .....

.....

.....

.....

.....

.....

60 000 km or 3 years Service Validation

Servicing Dealer .....

Brake fluid changed: YES/NO

Date of Service .....

Odometer .....

Signed .....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter (C24SE only)
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Replace spark plugs (C24SE only)
- ❒ Check power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Adjust valve clearance
- ❒ Check power steering fluid

Under vehicle – petrol and diesel

- ❒ Check clutch fluid
- ❒ Check brake fluid
- ❒ Check manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Check universal joints and splines for wear
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Check differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / discs and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Replace front hub bearing grease
- ❒ Check front and rear hub bearings for looseness
- ❒ Check front axle shaft rubber boot for damage
- ❒ Check axle housings for distortion or damage
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check park brake lever travel
- ❒ Check operation of lights, wipers, switches and controls
- ❒ Check park brake ratchet for wear or damage

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

70 000 km or 3½ years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1 hour
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature ..... Date .....

70 000 km or 3½ years Service Validation

Servicing Dealer .....
Brake fluid changed: YES/NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
.....
.....
.....
.....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

Under vehicle – petrol and diesel

- ❒ Check clutch fluid
- ❒ Check brake fluid
- ❒ Check manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Check differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / disks and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Check front and rear hub bearings for looseness
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check operation of lights, wipers, switches and controls

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

80 000 km or 4 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 2.1 hours with C24SE engine
- 2.3 hours with 4JH1-TC engine
- 2.3 hours with HFV6 engine
- add 0.2 hours for 4WD
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature ..... Date .....

Additional services performed: .....

.....

.....

.....

.....

.....

80 000 km or 4 years Service Validation

Servicing Dealer .....

Brake fluid changed: YES/NO

Date of Service .....

Odometer .....

Signed .....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Replace power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter
- ❒ Replace air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Adjust valve clearance
- ❒ Replace power steering fluid

Under vehicle – petrol and diesel

- ❒ Replace clutch fluid
- ❒ Replace brake fluid
- ❒ Replace manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Check universal joints and splines for wear
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Replace differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / discs and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Check front and rear hub bearings for looseness
- ❒ Check front axle shaft rubber boot for damage
- ❒ Check axle housings for distortion or damage
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check park brake lever travel
- ❒ Check operation of lights, wipers, switches and controls
- ❒ Check park brake ratchet for wear or damage

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

90 000 km or 4½ years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 2.1 hours with C24SE engine
- 1.9 hours with 4JH1-TC engine
- 1.9 hours with HFV6 engine
- add 0.4 hours for 4WD
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature ..... Date .....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Replace spark plugs (C24SE only)
- ❒ Check power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

90 000 km or 4½ years Service Validation

Servicing Dealer .....
Brake fluid changed: YES/NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
.....
.....
.....
.....
.....

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

Under vehicle – petrol and diesel

- ❒ Check clutch fluid
- ❒ Check brake fluid
- ❒ Check manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Check differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / disks and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Replace front hub bearing grease
- ❒ Check front and rear hub bearings for looseness
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check operation of lights, wipers, switches and controls

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

100 000 km or 5 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 2.9 hours with C24SE engine
- 2.8 hours with 4JH1-TC engine
- 2.2 hours with HFV6 engine
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature ..... Date .....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Replace coolant
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Replace timing belt, inspect tensioner and crank drive gear (C24SE only)
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

100 000 km or 5 years Service Validation

Servicing Dealer .....
Brake fluid changed: YES/NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
.....
.....
.....
.....

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Replace coolant
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Adjust valve clearance
- ❒ Check power steering fluid

Under vehicle – petrol and diesel

- ❒ Check clutch fluid
- ❒ Check brake fluid
- ❒ Check manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Check universal joints and splines for wear
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Check differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / discs and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Check front and rear hub bearings for looseness
- ❒ Check front axle shaft rubber boot for damage
- ❒ Check axle housings for distortion or damage
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check park brake lever travel
- ❒ Check operation of lights, wipers, switches and controls
- ❒ Check park brake ratchet for wear or damage

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

110 000 km or 5½ years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1 hour
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature ..... Date .....

110 000 km or 5½ years Service Validation

Servicing Dealer .....
Brake fluid changed: YES/NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
.....
.....
.....
.....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

Under vehicle – petrol and diesel

- ❒ Check clutch fluid
- ❒ Check brake fluid
- ❒ Check manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Check differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / disks and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Check front and rear hub bearings for looseness
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check operation of lights, wipers, switches and controls

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

120 000 km or 6 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 3.2 hours with C24SE engine
- 3.2 hours with 4JH1-TC engine
- 3.4 hours with HFV6 engine
- add 0.4 hours for 4WD
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature ..... Date .....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Replace spark plugs
- ❒ Replace power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

120 000 km or 6 years Service Validation

Servicing Dealer .....
Brake fluid changed: YES/NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
.....
.....
.....
.....

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter
- ❒ Replace air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Adjust valve clearance
- ❒ Replace power steering fluid

Under vehicle – petrol and diesel

- ❒ Replace clutch fluid
- ❒ Replace brake fluid
- ❒ Replace manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Check universal joints and splines for wear
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Replace differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / discs and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Replace front hub bearing grease
- ❒ Check front and rear hub bearings for looseness
- ❒ Check front axle shaft rubber boot for damage
- ❒ Check axle housings for distortion or damage
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check park brake lever travel
- ❒ Check operation of lights, wipers, switches and controls
- ❒ Check park brake ratchet for wear or damage

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

130 000 km or 6½ years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.
I understand I will be charged for the following hours of labour:

- 1 hour
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature ..... Date .....

Additional services performed: .....
.....
.....
.....
.....
.....

130 000 km or 6½ years Service Validation

Servicing Dealer .....
Brake fluid changed: YES/NO
Date of Service .....
Odometer .....
Signed .....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

Under vehicle – petrol and diesel

- ❒ Check clutch fluid
- ❒ Check brake fluid
- ❒ Check manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Check differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / disks and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Check front and rear hub bearings for looseness
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check operation of lights, wipers, switches and controls

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

140 000 km or 7 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 2.2 hours with C24SE engine
- 2.2 hours with 4JH1-TC engine
- 1.6 hours with HFV6 engine
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature ..... Date .....

140 000 km or 7 years Service Validation

Servicing Dealer .....

Brake fluid changed: YES/NO

Date of Service .....

Odometer .....

Signed .....

Additional services performed: .....

.....

.....

.....

.....

.....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter (C24SE only)
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Adjust valve clearance
- ❒ Check power steering fluid

Under vehicle – petrol and diesel

- ❒ Check clutch fluid
- ❒ Check brake fluid
- ❒ Check manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Check universal joints and splines for wear
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Check differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / discs and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Check front and rear hub bearings for looseness
- ❒ Check front axle shaft rubber boot for damage
- ❒ Check axle housings for distortion or damage
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check park brake lever travel
- ❒ Check operation of lights, wipers, switches and controls
- ❒ Check park brake ratchet for wear or damage

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

150 000 km or 7½ years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 2.1 hours with C24SE engine
- 1.9 hours with 4JH1-TC engine
- 1.9 hours with HFV6 engine
- add 0.4 hours for 4WD
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature ..... Date .....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Replace spark plugs (C24SE only)
- ❒ Check power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

150 000 km or 7½ years Service Validation

Servicing Dealer .....
Brake fluid changed: YES/NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
.....
.....
.....
.....

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

Under vehicle – petrol and diesel

- ❒ Check clutch fluid
- ❒ Check brake fluid
- ❒ Check manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Check differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / disks and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Replace front hub bearing grease
- ❒ Check front and rear hub bearings for looseness
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check operation of lights, wipers, switches and controls

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

160 000 km or 8 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 2.1 hours with C24SE engine
- 2.3 hours with 4JH1-TC engine
- 2.3 hours with HFV6 engine
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature ..... Date .....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter
- ❒ Replace air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Replace power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

160 000 km or 8 years Service Validation

Servicing Dealer .....
Brake fluid changed: YES/NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
.....
.....
.....
.....

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter
- ❒ Replace air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Adjust valve clearance
- ❒ Replace power steering fluid

Under vehicle – petrol and diesel

- ❒ Replace clutch fluid
- ❒ Replace brake fluid
- ❒ Replace manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Check universal joints and splines for wear
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Replace differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / discs and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Check front and rear hub bearings for looseness
- ❒ Check front axle shaft rubber boot for damage
- ❒ Check axle housings for distortion or damage
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check park brake lever travel
- ❒ Check operation of lights, wipers, switches and controls
- ❒ Check park brake ratchet for wear or damage

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

170 000 km or 8½ years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.
I understand I will be charged for the following hours of labour:

- 1.4 hours with 4JH1-TC engine
- 1 hour with petrol engine
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature ..... Date .....

Additional services performed: .....
.....
.....
.....
.....
.....

170 000 km or 8½ years Service Validation

Servicing Dealer .....
Brake fluid changed: YES/NO
Date of Service .....
Odometer .....
Signed .....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

Under vehicle – petrol and diesel

- ❒ Check clutch fluid
- ❒ Check brake fluid
- ❒ Check manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Check differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / disks and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Check front and rear hub bearings for looseness
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check operation of lights, wipers, switches and controls

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

180 000 km or 9 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 3.3 hours with C24SE engine
- 3.1 hours with 4JH1-TC engine
- 2.5 hours with HFV6 engine
- add 0.4 hours for 4WD
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature ..... Date .....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Replace spark plugs (C24SE only)
- ❒ Check power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

180 000 km or 9 years Service Validation

Servicing Dealer .....
Brake fluid changed: YES/NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
.....
.....
.....
.....

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Adjust valve clearance
- ❒ Check power steering fluid

Under vehicle – petrol and diesel

- ❒ Check clutch fluid
- ❒ Check brake fluid
- ❒ Check manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Check universal joints and splines for wear
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Check differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / discs and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Replace front hub bearing grease
- ❒ Check front and rear hub bearings for looseness
- ❒ Check front axle shaft rubber boot for damage
- ❒ Check axle housings for distortion or damage
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check park brake lever travel
- ❒ Check operation of lights, wipers, switches and controls
- ❒ Check park brake ratchet for wear or damage

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

190 000 km or 9½ years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1 hour
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature ..... Date .....

Additional services performed: .....
.....
.....
.....
.....
.....

190 000 km or 9½ years Service Validation

Servicing Dealer .....
Brake fluid changed: YES/NO
Date of Service .....
Odometer .....
Signed .....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

Under vehicle – petrol and diesel

- ❒ Check clutch fluid
- ❒ Check brake fluid
- ❒ Check manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Check differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / disks and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Check front and rear hub bearings for looseness
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check operation of lights, wipers, switches and controls

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

200 000 km or 10 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1.7 hours with C24SE engine
- 1.9 hours with 4JH1-TC engine
- 1.9 hours with HFV6 engine
- add 0.2 hours for 4WD
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature ..... Date .....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Replace coolant
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter
- ❒ Replace air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Replace power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

200 000 km or 10 years Service Validation

Servicing Dealer .....
Brake fluid changed: YES/NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
.....
.....
.....
.....

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Replace coolant
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter
- ❒ Replace air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Adjust valve clearance
- ❒ Replace power steering fluid

Under vehicle – petrol and diesel

- ❒ Replace clutch fluid
- ❒ Replace brake fluid
- ❒ Replace manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Check universal joints and splines for wear
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Replace differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / discs and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Check front and rear hub bearings for looseness
- ❒ Check front axle shaft rubber boot for damage
- ❒ Check axle housings for distortion or damage
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check park brake lever travel
- ❒ Check operation of lights, wipers, switches and controls
- ❒ Check park brake ratchet for wear or damage

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

210 000 km or 10½ years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 2.1 hours with C24SE engine
- 1.9 hours with 4JH1-TC engine
- 1.9 hours with HFV6 engine
- add 0.4 hours for 4WD
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature ..... Date .....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Replace spark plugs (C24SE only)
- ❒ Check power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

210 000 km or 10½ years Service Validation

Servicing Dealer .....
Brake fluid changed: YES/NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
.....
.....
.....
.....
.....

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

Under vehicle – petrol and diesel

- ❒ Check clutch fluid
- ❒ Check brake fluid
- ❒ Check manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Check differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / disks and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Replace front hub bearing grease
- ❒ Check front and rear hub bearings for looseness
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check operation of lights, wipers, switches and controls

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

220 000 km or 11 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 3.3 hours with C24SE engine
- 3.2 hours with 4JH1-TC engine
- 2.6 hours with HFV6 engine
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature ..... Date .....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Replace timing belt (C24SE only)
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

220 000 km or 11 years Service Validation

Servicing Dealer .....
Brake fluid changed: YES/NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
.....
.....
.....
.....

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Adjust valve clearance
- ❒ Check power steering fluid

Under vehicle – petrol and diesel

- ❒ Check clutch fluid
- ❒ Check brake fluid
- ❒ Check manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Check universal joints and splines for wear
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Check differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / discs and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Check front and rear hub bearings for looseness
- ❒ Check front axle shaft rubber boot for damage
- ❒ Check axle housings for distortion or damage
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check park brake lever travel
- ❒ Check operation of lights, wipers, switches and controls
- ❒ Check park brake ratchet for wear or damage

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

230 000 km or 11½ years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1 hour
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature ..... Date .....

Additional services performed: .....

.....

.....

.....

.....

.....

230 000 km or 11½ years Service Validation

Servicing Dealer .....

Brake fluid changed: YES/NO

Date of Service .....

Odometer .....

Signed .....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Check air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Check power steering fluid

Under vehicle – petrol and diesel

- ❒ Check clutch fluid
- ❒ Check brake fluid
- ❒ Check manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Check differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / disks and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Check front and rear hub bearings for looseness
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check operation of lights, wipers, switches and controls

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

240 000 km or 12 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 3.2 hours with C24SE engine
- 3.2 hours with 4JH1-TC engine
- 3.4 hours with HFV6 engine
- add 0.4 hours for 4WD
- If clutch fluid changed add 0.2 hour plus brake fluid
- If engine coolant changed add 0.4 hour plus coolant
- If brake fluid changed add 0.4 hour plus brake fluid

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

Signature..... Date .....

Under bonnet – petrol only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter
- ❒ Replace air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Replace spark plugs (C24SE only)
- ❒ Replace power steering fluid

- ❒ Brake fluid: Change every 2 years (regardless of kms)
- ❒ Clutch fluid: Change every 2 years (regardless of kms)
- ❒ Coolant: Change every 5 years (regardless of kms)

240 000 km or 12 years Service Validation

Servicing Dealer .....
Brake fluid changed: YES/NO
Date of Service .....
Odometer.....
Signed .....

Additional services performed: .....
.....
.....
.....
.....

Under bonnet – diesel only

- ❒ Replace engine oil and filter
- ❒ Check for oil leakage and contamination
- ❒ Check fluid levels: power steering, brake, washer, clutch, battery (if required)
- ❒ Check coolant level 50% concentration
- ❒ Check radiator cap and cooling system pressure
- ❒ Check idling speed and acceleration
- ❒ Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒ Clean front of radiator core and A/C condenser
- ❒ Replace fuel filter
- ❒ Replace air cleaner element
- ❒ Check accessory drive belt condition
- ❒ Adjust valve clearance
- ❒ Replace power steering fluid

Under vehicle – petrol and diesel

- ❒ Replace clutch fluid
- ❒ Replace brake fluid
- ❒ Replace manual transmission oil
- ❒ Check automatic transmission fluid
- ❒ Check transfer case oil
- ❒ Check shift on the fly system gear oil
- ❒ Check universal joints and splines for wear
- ❒ Lubricate universal joints and sliding sleeve
- ❒ Replace differential gear oil
- ❒ Check exhaust system
- ❒ Check brake pads / discs and linings / drum wear
- ❒ Tighten wheel nuts
- ❒ Replace front hub bearing grease
- ❒ Check front and rear hub bearings for looseness
- ❒ Check front axle shaft rubber boot for damage
- ❒ Check axle housings for distortion or damage
- ❒ Check vehicle ride height
- ❒ Check tyre pressure and check wheels for damage
- ❒ Rotate tyres if necessary
- ❒ General under body check (refer to Maintenance Schedule)

Vehicle interior – petrol and diesel

- ❒ Check clutch pedal travel and free play
- ❒ Check steering wheel free play
- ❒ Check brake pedal travel and free play
- ❒ Check park brake lever travel
- ❒ Check operation of lights, wipers, switches and controls
- ❒ Check park brake ratchet for wear or damage

Road test – petrol and diesel

- ❒ Check vehicle on the road (refer to Maintenance Schedule)

INDEX

Accidents 6-2
After sales service 9-2
Airbags 6-13
Air conditioning 1-17
Air pressures (tyres) 7-9
Antenna 3-14
Ashtray
  Front 1-19
  Rear 3-16
Assist grip 3-15
Automatic transmission
  Operation 4-13
  Fluid level 7-6
ABS 4-23
Axle specifications 8-4

Battery (when flat) 6-11
  Maintenance 7-12
Battery specifications 8-6
Bonnet release 1-20
Body features 3-1
Brakes
  Fluid level 7-7
  Specifications 8-3
  Warning light 1-7
  Park brake 1-14
Bulbs (replacement) 6-20

Capacities (fluid) 8-2
Caravan & trailer towing 10-2
Carbon monoxide warning 5-2
Centre console 3-15
Check engine light 1-8
Child restraints 3-8
Cigarette lighter 1-19
Cleaning 11-2
Clock 1-5
Clutch fluid level 7-7
Cooling system
  Fluid level 7-3
  Overheating 6-9
  Temperature gauge 1-3
Customer assistance 9-2
Cruise control 1-21

Dashboard layout 1-2
Demister 1-11
Diesel
  Bleeding fuel system 6-24
  Draining water separator 6-23
  Glow plug 1-7
  Engine starting (petrol) 4-3
  Engine starting (diesel) 4-4
  Fuel filling 5-4
  Warning lights 1-7
  Engine data 8-2
Dimensions 8-6
Dimmer 1-4
Dipstick 7-4
Dome light
  Bulb replacement 6-22
  Operation 3-14
Door locks 2-5
Driving precautions 4-5

INDEX cont.

Emission control system 5-5
Engine
- Cooling system 7-3
- Identification number 8-7
- Overheating 6-9
- Specifications 8-2
- Starting (petrol) 4-3
- Starting (diesel) 4-4
- Warning light 1-8

Engine oil
- Capacity 8-2
- Checking levels 7-4
- Consumption notes 7-5
- Pressure light 1-6

Exhaust gas warning 5-2

Flashers
- Hazard warning 1-14
- Turn signal 1-13

Flay battery 6-11
Flat tyre 6-4
Flooded engine 4-3
Fluid capacities 8-2
Fluid levels
- Automatic transmission 7-6
- Brake 7-7
- Clutch 7-7
- Coolant 7-3
- Oil 7-4
- Power Steering 7-8
- Windscreen washer 7-8

Fog lights 1-13
Four wheel drive
- Driving 4-8
- Indicator 1-8
- System operation 4-16

Fuel 5-2
- Bleeding (diesel) 6-24
- Draining water from (diesel) ... 6-23
- Economy tips 5-6
- Filter indicator 1-8
- Gauge 1-4
- Refilling 5-4
- Warning light 1-6

Fuel tank specifications 8-3
Fumes (petrol) caution 5-2
Fuses 6-16

Gauges 1-3
Gear ratios 8-3
Glow plug (diesel) 1-7
Glovebox 1-20
G.V.M. 10-4

Hand brake 1-14
Hazard warning flashers 1-14
Head restraint 3-4
Heater controls 1-16
Headlights
- Switch 1-12

High beam indicator light 1-6
Hood 1-20
Horn 1-11

INDEX cont.

Identification numbers 8-7
Ignition switch 1-13
Immobiliser 1-14
Indicators (turn signals) 1-13
Indicator/warning lights 1-5
Infant & child restraints 3-8
Inflation (tyres) 7-9
Instrument panel 1-3
Interior (dome) light 3-14

Jack 6-4
Jump starting 6-11

Keys 2-2

License plate light 6-22
Lights
- Bulb replacement 6-20
- Instrument panel 1-5
- Headlight switch 1-12
- Interior light 3-14

Loading information 10-2
Locks 2-4
- Bonnet 1-20
- Childproof 2-6
- Door 2-5
- Electric door 2-5
- Fuel filler 5-4
- Glovebox 1-20
- Ignition 1-13
- Tailgate 2-6

Lubricants 8-4

Maintenance schedule 12-4
Manual transmission
- Fluid capacity 8-3
- Operation 4-12

Map light 3-14
Mirrors 3-11
Malfunction indicator light 1-9
Model identifications 8-7

New vehicle running-in 4-5

Octane rating (fuel) 5-4
Oil
- Capacity 8-2
- Level 7-4
- Low pressure warning 1-6
- Viscosity chart 8-5

Overheating 6-9
Owner responsibility
- Emission controls 5-5
- Weekly checks 7-2
- Maintenance service 12-1

Paintwork cleaning 11-4
Park brake
- Lever 1-14

Parking 4-2
Petrol 5-4
Pocket (small) 1-20
Power outlet (accessory) 1-19
Power steering
- Fluid level 7-8
- Precaution 4-6

INDEX cont.

Radiator ..... - See “Cooling system”
Radio 1-11
Rear axle 8-4
Rear vision mirrors 3-11
Remote control
Door locks 2-2
Restraints 3-4
Roadside Assistance 9-4
Running-in 4-5

Safer Driving precautions 4-5
Safety 4-2
Seat adjustment 3-2
Seat belts 3-5
Serial number 8-7
Service 12-2
Spare wheel 6-6
Specifications 8-1
Speedometer 1-3
SRS 6-13
Starting
Flat Battery 6-11
Normal engine 4-3
Steering (power) 7-8
Steering (specifications) 8-3
Steering (tilt) 3-12
Stop/tail light replacement 6-20
Storage box 3-16
Sun visors 3-15
SVS indicator light 1-9

Tachometer 1-4
Tailgate lock 2-6
Temperature gauge 1-3
Tilt steering 3-12
Towing 10-2
Caravan/trailer 10-2
Disabled vehicle 6-8
Precautions 10-9
Transmission
Automatic 4-13
Gear ratios 8-3
Manual 4-12
Turn signal
Bulb replacement 6-21
Operation 1-13
Tyres
General 7-10
Inflation pressure 7-9
Specifications 8-6

Vanity mirror 3-15
Vehicle Identification Number 8-7
Vehicle loading 10-2
Vehicle weights 10-2
Ventilation system 1-15
Viscosity chart 8-5

Warning lights 1-5
Warranty 9-6
Washing 11-2
Water crossing 4-8
Water separator (diesel) 6-23
Weekly checks 7-1
Wheel changing 6-4
Wheel replacement 7-11
Wheel specifications 8-6
Windows 3-12
Windscreen
Wiper/washer control lever 1-10
Fluid level 7-8